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HENRY C. PEARSON,
EDITOR.**HAWTHORNE HILL,**
ASSOCIATE.

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TO HIS MAJESTY KING EDWARD VII the opportunity came in an unusual degree to promote peace on earth and good will to men, and right royally he availed himself of it. To no mortal could higher tribute be paid. No one else, perhaps, has contributed more to making the whole world akin—in other words, to bringing the nations so near together that every man shall be neighbor to every other. This sentiment, we are certain, is appreciated no less in America than in that older half of the English world in which our journal has such warm friends. May the new King conclude his reign with plaudits so well earned!

PUBLICITY FOR CORPORATIONS.

CONSIDERING the outcry only a few years ago against the organization of industrial trusts, one might reasonably expect even more in the way of criticism to-day in the press and in political orations. The number of so-called trusts has increased and their combined capital is vastly greater; they are selling more products to more people, and making larger profits. If industrial combinations were evil in principle in the beginning, they must be evil in practice now, and especially when their operations affect a constantly increasing proportion of the public.

But the old style denunciation of trusts has well nigh disappeared, along with indiscriminate abuse of railway companies, and of corporations in general. We always have been convinced that if the principle of combination in trade was sound economically it would prevail, whereas if not sound it could not be long maintained by any means. Apparently the new system has outlined the strongest opposition heard in earlier years.

It is not implied that legislation relating to corporations has ceased; doubtless new or amended laws on this subject will be "ground out" as long as laws dealing with any relations between man and man. In other words, regulation of corporations will be regarded as necessary, by the corporate interests themselves as well as by the public, but the idea of a variance between the one and the other will be dropped.

An important instance of such regulation appears in the new federal law calling for publicity of corporation affairs generally. This requirement has not been opposed, except in details, perhaps, by the leading corporations, and doubtless regulations agreeable to all concerned will yet be framed. The railway and insurance companies have become accustomed to making public the condition of their affairs under legal requirement, and industrial corporations make such reports in some of the states.

But no legal requirement as to corporation returns thus far has involved so much real "publicity" as is given through some reports made recently by certain large industrial combinations. It is evident that these reports have been made voluntarily, and that it is deemed to be to their interest to have the general public understand the condition of their affairs as well as the individual shareholders. The education of the public mind as to corporation affairs tends to legislation regarding them less affected by popular bias or prejudice. Again, it doubtless would be beneficial if the public more generally were interested as investors in the industrial development of the country—which tendency is likely to be increased by greater publicity of corporation returns.

GUNNING FOR "GOLD BRICKS."

IT is an editor's privilege, sometimes his duty, to sit in judgment on certain commercial undertakings and warn the unwary. This is often easy, and can be taken up with vigor and a measure of success when proofs of attempted fraud are manifest and plenty. At other times, while the editor may have an innate conviction that an undertaking is unsound or fraudulent, in the absence of proof he is scarcely warranted in acting on an intuition. Of course, the easy way and safe one is to condemn everything new. Then one wins a reputation for forecasting failures, and investors in them wish that they had taken the prophet's advice, while those who share in successes are so delighted that they were wiser than their editor, that they forget all but their own astuteness.

These reflections are prompted by the suggestion

that THE INDIA RUBBER WORLD start a crusade against a company that is selling much stock to exploit a process for "making rubber." According to expert testimony it is an extraction process. Aside from some statements in the prospectus which are inaccurate technically—which happens often in the soundest of propositions—it is impossible to say positively that the company cannot accomplish what it claims. In all fairness to everybody, therefore, it behooves the editor to wait for proof and say nothing.

ON THE ROAD TO TARKWA.

SITUATED about seven miles by good road from Tarkwa is "a virgin rubber estate" comprising an area of about twenty square miles, for which the native chief of the district, under date of April 2, 1910, granted a lease for a period of 99 years direct to an English company at a rental of \$175 per year. The directors of the English company "are advised that the soil is in every way adapted for the cultivation of rubber and also cotton and other profitable crops."

[Wild oats not mentioned among the profitable crops.]

The side of the earth on which Tarkwa stands produced in 1908 some 14,000 tons of wild rubber, and "it is estimated that the output for 1909 will have been found to have been 15,000 tons - - - The price of wild rubber, well cured, is invariably higher than plantation rubber, and where resiliency is required, such as for motor tires, the makers of which pay the highest prices."

[Tarkwa is in West Africa.]

The road to Tarkwa has been well surveyed. But this by some may be regarded of less importance than rubber and cotton, "both of which, as a fact, are indigenous to the soil." Wherefore "it is intended to plant the true Pará rubber tree" and the New Tree Cotton Plant, neither of which is indigenous. Of course, if rubber and cotton species are found native seven miles from Tarkwa, other varieties must prove more profitable. And a company has been incorporated in London, under the Companies (Consolidation) Act, 1908, to permit the public to share in the profits from holding the Tarkwa property under the "exceptionally favorable rental" already named. "The shares of this company are all of one class."

The labor proposition here is that a good supply of "boys" can be secured at \$5 to \$6 a month, "The Chief himself being responsible for their work and conduct."

[Whether his Majesty George V will be responsible for the native chief when the march of empire starts toward Tarkwa is a point overlooked in the prospectus.]

Profits are to arise from three sources, to wit:

- (1) The sale of tires made by a company registered in London, December 11, 1908, with £5,000 capital.
- (2) Collecting wild rubber from the leased property and buying rubber from neighboring natives for resale in London.
- (3) Later, from planted rubber, and from other crops "to be grown simultaneously between the trees."

It was proposed to tax the public only £50,000 to share in this opportunity on the well surveyed road to Tarkwa. No doubt the offer was gladly accepted, especially in view of the fact of the soil being of a "red ferruginous type." But why should anybody trouble to lease lands from an African chief as a basis for selling rubber planting shares in these days? Didn't two ancient spinsters who recently inherited a decrepit sawmill near Pará sell the same in London as a rubber estate on the representation that Pará is where all the good rubber comes from?

WHEN RUBBER WAS SELLING AT ONLY \$1 a pound certain counterfeiters were tempted to exploit artificial and synthetic substitutes. Now that rubber is three times as valuable, and ten times as much in evidence, what a tremendous pressure of temptation these counterfeiters must be under! And why are they silent? Surely never was time so opportune, money so plenty, or innocents so abounding.

THERE ARE THOSE WHO PUT THE BLAME for the notable increase in the price of crude rubber upon the automobile tire, and it is without doubt the enormous expansion in that line that has caused the advance. Millions of dollars worth of rubber have gone into tires, tires that are to-day in use or in store, and that rubber is therefore withdrawn from all other manufacturing possibility. Such withdrawal, however, is only temporary. In one, two or three years 90 per cent. of all this rubber will come back to the manufacturers through the reclaimers. It will not be "shoddy" by any means, but a high grade recovered gum that can be used in almost any ordinary rubber work as safely as the better grades of crude rubber. And it is on this great aggregation of stored up rubber that manufacturers can count, to obviate not only a further increase in the price of crude rubber, but a perpetuation of the present abnormal condition as well.

THE PROSPECTOR FOR GOLD, for copper or iron has for years been a familiar figure. He was in a class by himself, a seacher for hidden earth products, scientifically equipped for his calling, employed by corporations whose continuance depended upon large supplies of raw material. To this class to-day is added the rubber prospector. Trained foresters, botanists, and chemists who are hatching the tropical and subtropical forests for rubber. Trees, shrubs, or vines annual and perennial are being discovered, examined and reported upon. The outcome is sure to be a notable increase in crude rubber, and perhaps the utilization of new sources of supply as valuable and spectacular as was the advent of guayule rubber.

CULTIVATION OF GUTTA-PERCHA.

IN a review, in *De Indische Mercur*, of Mr. Henry's article on "India-Rubber in the Electrical Field" [see THE INDIA RUBBER WORLD, January 1, 1910—page 119], Professor A. H. Berkhout writes:

"Many years ago the writer [Dr. Berkhout] considered it his duty to warn against the cultivation of gutta-percha, inasmuch as this substance is principally used for insulating submarine cables, for which purpose india-rubber could not be used at that time. The writer expressed his apprehension that a method for likewise making the latter material proof against the action of sea water would be discovered, and that there would consequently be a sharp decline in the price of gutta-percha. The foregoing article shows this apprehension to have been well founded."

THE RUBBER CLUB OF AMERICA—ANNUAL.

THE annual meeting of the Rubber Club of America (formerly New England Rubber Club) was held on Friday evening, May 13—having been postponed from April 18—at the American House, Boston. A quorum being present, the meeting was called to order by President Pearson at 6:15.

The first business was the reading of the Secretary's report, which was unanimously accepted and ordered placed on file. The second business was the reading of the Treasurer's report, which was unanimously accepted and ordered placed on file.

SECRETARY'S REPORT.

Another year having passed, the Club enters on its eleventh year in fine condition, under the name of the Rubber Club of America. The Club has a membership of 248, there having been 45 new members added during the year, while five have passed to the great beyond.

There have been two entertainments during the year, the usual summer outing held at the Riverside Recreation Grounds on July 13, and the Mid-winter Dinner at the Algonquin Club, Boston, on December 13. Both were much enjoyed by members and friends, and pronounced successful.

At the business meeting, held at the Riverside Recreation Grounds on July 13, it was voted that the name of our organization be changed from New England Rubber Club to Rubber Club of America, and that a charter be secured under the Massachusetts laws. The committee appointed to secure this charter attended to its duties promptly and thoroughly and the charter has been granted.

At a regularly called meeting of the Executive Committee held on December 1, 1909, members of the New England Rubber Club, approved by the committee, were elected to membership in the Rubber Club of America.

Our membership in the Massachusetts State Board of Trade has been maintained.

The past year has taken from us five esteemed members: George M. Allerton, Robert D. Evans, Wallace F. Foster, James B. Forsyth, and Joseph Davol. Their absence from our meetings will be a great loss, and their memories will long be cherished.

There is strong good fellowship among our members, and under our charter as the Rubber Club of America, the prospects are bright for a furtherance of educational and scientific research in india-rubber production and manufacture, and for the social intercourse among gentlemen connected with the rubber industry. Respectfully submitted,

GEORGE H. MAYO, Secretary.

TREASURER'S REPORT.

Balance on hand, April 21, 1909.....	\$618.87
Received—Initiation fees.....	\$105.00
Annual dues.....	770.00
Assessment for banquet and outing.....	1,261.00
Interest on deposits.....	11.45
Total.....	\$2,147.45

Paid Out.

Banquet.....	\$2,492.68
State Board of Trade.....	25.00
Incorporating Rubber Club of America.....	30.00
Printing, etc.....	97.45
Balance, April 4, 1910.....	121.19
Total.....	\$2,766.32

J. FRANK DUNBAR, Treasurer.

The next business was the election of officers for the ensuing year. President Pearson then read the report of the nominating committee appointed at the last annual meeting, consisting of Hon. L. Dewart Apsley, Homer E. Sawyer, William H. Gleason, Charles J. Bailey and Elston E. Wadbrook. The committee recommended, in view of the successful administration of the officers of the Club during the year 1909-10, that the present officers be reelected to serve during the ensuing twelve months.

On motion, the Secretary then read the names of the officers and by unanimous vote was instructed to cast one ballot for the following, to serve for the year:

President—HENRY C. PEARSON.

Vice President—FREDERIC C. HOOD.

Treasurer—J. FRANK DUNBAR.

Secretary—GEORGE H. MAYO.

Assistant Secretary—FRANK D. BALDERSTON.

Honorary Vice Presidents—L. Dewart Apsley, Augustus O. Bourn, George H. Hood, Henry C. Morse, John H. Flint, Alexander M. Paul and Arthur W. Stedman.

Directors—Costello C. Converse, Elisha S. Williams, Ira F. Burnham, George P. Whitmore, Frederick H. Jones, Robert L. Rice, and Elston E. Wadbrook.

There being no further business, the meeting was adjourned at 6:25.

The meeting was followed by a dinner, after which members and guests were addressed by President Pearson on his recent extensive trip up the Amazon, illustrated with a complete set of lantern slides. This interesting and instructive talk from one so well equipped and familiar with the situation in Brazil, was very much enjoyed, and all left with the feeling of having spent a most satisfactory and pleasant evening.

Following the annual meeting the Executive Committee was convened, when the usual committees were chosen: Nominating, Dinner, Sports, Entertainment, Resolutions, and Auditing.

Nominating.—Hon. L. Dewart Apsley, chairman; Homer E. Sawyer, Charles J. Bailey, William H. Gleason, Elston E. Wadbrook, secretary.

Dinner.—Francis H. Appleton, chairman; Charles A. Coe, Eugene H. Clapp, William E. Barker, Joseph W. Work.

Sports.—Frank D. Balderston, chairman; R. E. Paine, R. L. Chipman, William J. Kelly, Wallace G. Page.

Entertainment.—George H. Mayo, chairman; Charles J. Bailey, James H. Learned, George E. B. Putnam, William H. Palmer.

Resolutions.—George P. Whitman, chairman; Elston E. Wadbrook, Alexander M. Paul.

Auditing.—William H. Gleason, chairman; J. Everett Stone.

THE SINGLE TUBE TIRE PATENT DEAD.

ONE of the longest and most vigorous legal contests in respect of the rubber industry, and which certainly was the most important tire patent case in the American courts, was that based upon the single tube tire, for which a patent was held by Pardon W. Tillinghast—No. 497,971, dated May 23, 1893, and expired May 23, 1910. The history of the litigation over this tire, which type was the one principally used on bicycles in the United States, was recorded fully in the pages of THE INDIA RUBBER WORLD.

The late Colonel Albert A. Pope, in connection with his development of the bicycle industry, and the late Colonel Theodore A. Dodge, as a rubber manufacturer, were both interested to an important extent in the Tillinghast tire patent, and it was Colonel Dodge who founded the Single Tube Automobile and Bicycle Tire Co., which company has continued to exist, with Colonel Dodge as president, until his death in October last, with an interest held by the Rubber Goods Manufacturing Co. The royalties collected on this patent must have amounted first and last to a very important sum. Of course, the manufacture of single tube tires is now open to the whole trade.

Despite its popularity in America, this type of tire found little favor in any other country. It was patented in few countries, if any, outside of the United States, and particularly never was protected by a patent in Great Britain. In that country one Boothroyd described a single tube tire in an issue of *The Cyclist*, published on December 3, 1890. In the litigation in which the Tillinghast patentees sought to establish their rights, the defense in part was priority of Boothroyd's publication, but the court accepted evidence that Tillinghast had invented his tire and disclosed it to others as early as the summer of 1890, although his application for a patent was not filed until September 2, 1892. Mr. Tillinghast died about four years ago.

A ROYAL decree in Belgium provides that from July 1 next there shall be levied on rubber other than plantation product exported from the Belgian Congo, in addition to the regular export duty, a tax of 75 centimes per kilogram [= about 6 cents per pound] when the rubber is from trees or vines, and of 50 centimes on so-called "root rubber."

A PATENT issued to Philip L. Wooster, of Yonkers, New York, relates to hose pipes, consisting of an absorbent woven fabric body portion, which has been saturated with a solution of asphaltum and dried.

THE NEW MALAYSIAN RUBBER.

THE United Malaysian Rubber Co., Limited, registered in London April 26, 1910, with a stated capital of £2,000,000 [= \$9,733,000] in £1 shares, has been formed principally for the purpose of acquiring the stock of the Malaysian Rubber Co., incorporated under the laws of New Jersey (United States), June 18, 1909. The Malaysian Rubber Co. owns a process for the treatment of gutta-jelutong (Pontianak gum), with a view to producing a high grade rubber, by means of (1) a new method of coagulation of the latex, and (2) the refining of the crude product by a new process which involves the extraction of merchantable resin and all surplus water. The Malaysian company have established a factory at Goebilt, in the British protectorate of Sarawak, in the western part of Borneo, where the new processes are being operated on a large commercial scale. [See THE INDIA RUBBER WORLD, February 1, 1910—page 162.]

Through holding shares of the British Malaysian Manufacturing Co., Limited, the American concern controls a valuable concession in Sarawak, where the jelutong tree (*Dyera costulata*) grows abundantly. Negotiations are on foot for obtaining similar concessions in other territories where the tree is found, including a grant for exclusive rights to tap jelutong trees over a large area in the Federated Malay States.

The production of jelutong in Sarawak, which is only one of the company's sources of supply, is stated in the prospectus of the new company to have been as follows:

Year.	Tons.	Year.	Tons.	Year.	Tons.
1902.....	3,356	1905.....	5,157	1908.....	2,380
1903.....	4,926	1906.....	3,832	1909.....	9,027
1904.....	4,657	1907.....	5,537		

[NOTE.—1907-08 was the period of the American financial crisis.]

Reference is made in the prospectus of the new company to the large demand in the United States for Pontianak gum under conditions previously existing, and the view is taken that under changed conditions whereby the gum can be refined in the country of production, instead of being left to be carried out in this country, there will be a largely increased demand. It is stated that the average cost of jelutong at Sarawak for the past eight years has been less than 5 Straits dollars per picul, which would figure out, say, 2½ cents, gold, per pound. This low cost will explain the small market rate for the material in the United States. However, in consequence of the advanced prices of fine rubber, the cost of jelutong is now higher. London brokers are quoted in the prospectus of the new company as quoting the price of 7s. [= \$1.70.2] or more per pound as reasonable for refined Pontianak under the new process. The present plant at Goebilt is referred to as having a capacity of about 1,500 tons of finished rubber per year and about 4,500 tons of resin. Plans are under way for a large increase in the capacity of the factory.

The directors of the United Malaysian Rubber Co., Limited, are as follows, the board including three Americans, who hold a similar relation to the Malaysian Rubber Co.:

SIR PERCY FRANCIS CUNYNGHAME, Bart. (formerly Resident of the Protectorate of Sarawak), Badgeworth, near Cheltenham, *Chairman*.
 CORNELIUS VANDERBILT (Director Illinois Central Railroad Co., &c.), No. 30 Pine street, New York.
 ROBERT GOBLEY (Director Southern Pacific Co., &c.), No. 9 West Seventeenth street, New York.
 HENRY MAITLAND KERSEY, D.S.O. (Director Forestal Land, Timber and Railways Co.), Limited, 8 Crosby square, E. C., London.
 MARQUIS DE CHARNACE, 35, bis, Rue d'Anjou, Paris.
 MATTHEW G. HALE (of Hale & Son, Produce Brokers), 10 Fenchurch avenue, E. C., London.
 JOHN L. ELLIOT (Director Mexican Coal and Coke Co., &c.), No. 71 Broadway, New York.

The secretary and registered office (*pro tem*) are H. H. F. Stockley, 22, Fenchurch street, E. C., London. The recent offer of stock was for £400,000, of which £300,000 in shares had been applied for by the directors and their friends.

The prospectus states further: "The capital stock of the Malaysian company is \$4,000,000, equivalent to about £824,000. The market value of such stock, based on sales of stocks effected during the last few months in New York, was over £1,647,000." The terms of the transfer to the new company are not mentioned.

The imports of gutta-jelutong into the United States since July 1, 1902, have been stated as follows in the customs returns:

Year.	Pounds.	Values.
1902.....	6,901,362	\$164,459
1903.....	14,994,437	390,137
1904.....	14,867,007	479,891
1905.....	25,369,473	890,842
1906.....	18,164,293	622,600
1907.....	33,679,951	1,468,030
1908.....	16,663,605	550,569
1909.....	36,817,920	1,420,220

Not much is to be found in print regarding the tree producing jelutong. The gum, however, is regarded generally to be the product of *Dyera costulata* (Hook., fil.). Jelutong is one of the names applied to this gum in Borneo, or, as spelled in the Dutch, "getah-djelotoeng." Some authorities mention more than one species, and botanists are not agreed as to the proper designation. For instance, *Dyera laxiflora* is mentioned, and also *Alstonia costulata*. At any rate the trees are abundant in Borneo and throughout the Malay peninsula, and the territory with which the new company are concerning themselves aggregates 30,000,000 acres, though the tree is referred to as not being abundant throughout this area. A report in the *Agricultural Bulletin of the Malay Peninsula*, No. 9 (May, 1900—page 249), says:

"The jelutong tree abounds in all parts in a very liquid white latex containing a good deal of caoutchouc. The latex pressed between the finger and thumb draws out into fine and fairly firm threads as do the better class rubbers. Allowed to dry in the ordinary manner it becomes hard and brittle, but for sale it is usually coagulated with the aid of kerosene, forming a mealy rubber of a white color, and of but little value. I am informed that it is chiefly used for making moldings of picture frames, and for adulterating other local rubbers."

Mr. Pearson wrote in his "What I Saw in the Tropics" (page 72):

"Next after the *Hevea* I wanted most to examine the tree that produces the gutta-jelutong, or Pontianak gum. I found that it was very common all through the Federated Malay States, and that the gum was rarely taken from it, the tree being regarded as useful only for the cheap clogs that the natives wear. The tree is botanically the *Dyera costulata*, and when mature is a splendid forest creation. One in the gardens [Singapore], of which I have a photograph, was certainly 150 feet high, with a huge three part trunk, and a magnificent crown of leaves. We did not tap this one, but went into the jungle, found a wild one, and tapped it after the most approved method. The latex oozed out like clotted cream and seemed most abundant, but began to coagulate almost at once. It is said that a mature tree produces as much as 100 pounds, by scraping the bark rather than tapping, and mixing at once with kerosene."

THERE is to be held in Detroit, Michigan, this summer, an industrial exposition, under the auspices of the Board of Commerce of that city, beginning on June 20 and remaining open three weeks. As was the case with the important industrial exposition last year at Cleveland, Ohio, the Detroit exposition will be devoted solely to local interests. The announced purposes are: "To teach Detroit to know itself; to teach the world to know Detroit." Detroit today ranks first in the item of automobile manufacturing, and is the seat of an important rubber industry, so that it is likely that rubber will have considerable prominence in the coming exposition.

Pará, Manáos and the Amazon.

By the Editor of "The India Rubber World."

THIRD LETTER.

Pará Agreeably Disappointing.—Comfortable Though in the Tropics.—Excellence of the Public Services—Visits to the Governor, the Mayor, and the Clubs.—Views of the People and Interviews with Some of Them.—Pará as a Rubber Center.—Methods of Conducting the Trade.

I MUST confess that I was agreeably disappointed in Pará. The steamer gossips had said much about the city, and little that was good. I paid 12 milreis a day at the hotel and found both service and food excellent. My bedroom, with its lofty bare walls, 12-foot double casement, and narrow bed with mosquito net draped over a white parasol and hanging in graceful folds to the floor, was just my idea of a tropical apartment. To be sure, if one lighted a lamp and put it in the open casement at night it was possible to coax mosquitoes in. Some visitors do this and then kick. I did not. I had my cheerful little brown chamber man look through the net in mid afternoon for mosquitoes, then tuck it securely under the mattress, and what few bites I got did no harm.

As long as we are talking about mosquitoes, there are two kinds that work mischief—the little black ones that carry malaria, and the larger striped ones that may or may not provide yellow fever. We recognized both kinds and they recognized us, but nothing came of it.

The day of my arrival a Portuguese physician, who was a friend of a friend of mine in Rio, called and left a packet of powders with directions to "take one every morning," and I would not have yellow fever. His medicine was all right. I took it three days and escaped; then somebody stole the box and so I couldn't experiment further. Speaking of yellow fever, it would be foolish for any one to disregard ordinary precautions. But to my mind the pneumonia of our northern clime is much more easy to get and just about as fatal. Yellow fever is endemic in Pará. There were several deaths a week while I was there, but it was a question if they were all yellow fever. Most of those who died from it were from the lowest classes, who weaken their stomachs by drinking "cachaca" and then get what may be a low malarial fever or almost any kind of bilious fever; it all goes down as "amarillo."

A BEAUTIFUL CITY.

The city itself is exceedingly beautiful. Near the water front it develops some smells other than those produced by rubber, but up in the city proper it is fine and clean. The cafés, with tiny round tables out on the sidewalks, remind one very much of Paris. In the residence section—for example, the Avenida Nazareth—the elegant homes, luxuriant tropical gardens, the well-paved streets, and the shaded sidewalks are worth coming a long distance to see. Before daylight every morning an army of laborers sweeps every city street, using broad palm branches, one of which does the work of a dozen brooms. The litter is then carted away in huge covered tip carts,

each drawn by a single well-fed, patient-eyed steer. Then in the afternoon the heavy showers come and help notably in this street cleaning. The city in many respects is very modern. Automobiles are there in plenty, and as there are no speed limits, the drivers scorch up and down any and all streets at 35 to 40 miles an hour, but with no accidents as far as I could observe.

The police service is excellent, and one cannot go anywhere after dark without seeing a policeman at almost every corner.

The parks, both in the city proper and beyond the city limits, as well as the magnificent Botanical Gardens, are beautiful beyond compare.

It is, to be sure, a tropical city; that is, it has its hours of relaxation every day, and its days almost every week. Certain of the offices, for example, open at 9 in the morning, close between 11 and 1, and close again at 3. They also keep the bars up Sunday and feast days, which latter are many. While the lesser officials watch the clock and kill time, the *Intendente*, or mayor, works day and night, so 'tis said, and it is to his energy and foresight that many of the beautiful buildings and parks, as well as public utilities, are due.

There is an excellent fire department, with the best tropical equipment I have seen. Accustomed to the freedom of American cities, I started to walk into one of the central stations one day to look it over, and was promptly held up by a businesslike young chap with a Mauser rifle, who called for the Corporal, who reported to the Captain, who in turn got the Commandante. He very politely detailed an officer to show me through the yards, stables, gymnasium, dormitories, and munition room, and to examine the engines, hose carts and ladder trucks. It was the first combination of barracks and engine house that I had seen, and I was much interested, and said so to the Commandante, the Captain and the Corporal, each of whom saluted politely with outstretched hand and raised hat as I left. To the sentinel I gave a big



PRACA DA INDEPENDENCIA, PARA.

black cigar with a gorgeous band on it, and underneath the band a revenue stamp, which every cigar in the Brazils is obliged to wear.

AT THE GOVERNOR'S PALACE.

A friend had suggested, almost as soon as I landed, the advisability of visiting the Governor and, when I agreed, promptly arranged for an audience. But I was in flannels and my frock coat had been carried off, I knew not whither, to be pressed. The Yankee Consul, however, stepped into the breach and, communicating to the Governor my predicament, the audience was set for the day following. To learn all of the details I meandered over to the consulate, where the Consul greeted me like a long-lost brother. If I had come from Ohio, his native State, I believe he would have embraced me. A husky, warm-hearted, quick-tempered, bustling Westerner, he won my heart then and there, and when he came around next morning in a taxicab with a visiting rubber manufacturer from the States and a leading Brazilian rubber merchant, I was glad I was ready.

A frock coat and a top hat are not the most comfortable things in the tropics, but we all wore them. And as the other three were stout and I am not, my collar didn't wilt until the audience was over, which is more than they can say for themselves. The Governor received us on a sort of divan flanked by four chairs, which we occupied. He was good enough when we were seated to remark that in his last message he had quoted from *THE INDIA RUBBER WORLD*. I replied that as there was no international copyright, I was powerless to protect myself from such cases. I told him further that the rubber manufacturers in the United States knew of him and would be more than glad to have him call and see them. Then we talked about rubber planting, in which he is very much interested, and he said that the State was

willing to do anything in reason to encourage planting corporations.

The Yankee Consul meanwhile was getting restive because the Visiting Manufacturer was not receiving more attention, and said in liquid Portuguese:

"My friend on the right is one of the largest manufacturers of rubber in the world. He uses only Para rubber, and his factory is in Ohier."

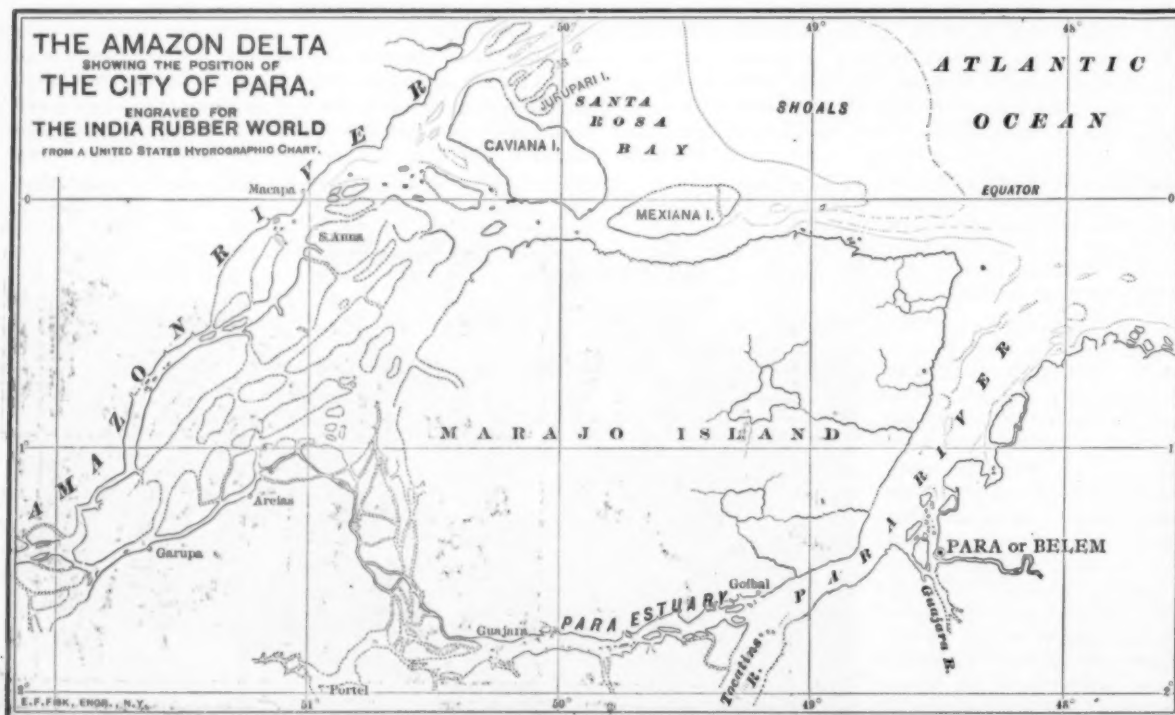
If he had said "Erhio" or "Oheeo" I think the Governor would have understood that he was referring to the Mother of Presidents. But as it was he only looked blank and murmured a compliment, while the Visiting Manufacturer's eyes twinkled as he thought of his last year's bill for reclaimed rubber.

It is difficult for a democratic American to know how to address high foreign officials. The Visiting Manufacturer called the Governor "Monsieur the Signor," which sounded bully. I couldn't catch the Portuguese rendering of the title, but turned into English it reads "Mister the Mister," which, although respectful, is slightly tautological.

It wasn't really a heart-to-heart talk as the Governor knew no English and we knew no Portuguese, and I think his Excellency was glad when it was all over. Not that he showed it in any way. He was every moment the courteous, polished, dignified gentleman, and the next day sent his *aide de camp* around to my hotel to return the call, and, before I left the city, sent me a score of beautifully illustrated books and some marvelous maps for souvenirs of my visit. His word also placed everything in the beautiful public library at my disposal.

THE MAYOR ALSO VISITED.

We also made a formal call on the *Intendente* (mayor). According to his enemies, he is another Richard Croker. He received us at 8 o'clock in the morning at his home, a fine big



The river Amazon, proper, does not admit of approach by sea vessels, on account of the shoals shown by the chart. Ocean vessels enter, therefore, by what are known as Pará river and the Pará estuary, rounding the island

of Marajo, with an extent of 18,000 square miles. Marajo and the other islands shown are the source of "Islands" Pará rubber. The city of Pará is called in Brazil "Belem."



PUBLIC LIBRARY, PARÁ.

palace of a house, with broad verandas and magnificent apartments opening one into the other. He had with him the secretary of the municipality, a huge, intellectual, coal-black negro, who is probably the finest orator in northern Brazil, and is called the "Booker Washington of South America." I asked the *Intendente* why instead of shading the streets of the city with mango trees, he had not planted *Hevea Brasiliensis*? He answered promptly that years ago there was much tuberculosis in the city; that the mango gives off an aromatic balsam that is very healing, and that consumption had practically disappeared since the trees had matured. Besides, the poor people practically lived upon the fruit of the tree for weeks at a time.

The Visiting Manufacturer, who evidently had been picking out the wrong cabs, said to the *Intendente*:

"Why don't you fine cab drivers who do not use rubber tires?"

The reply came:

"I have done better than that; I have taken the tax off of rubber tired vehicles and kept it on the steel shod ones. Now it's up to you to make better tires so that our drivers will all be able to use them."

After that we retired, the *Intendente* wearing the honors.

Pará has a number of daily newspapers. Two of them, however, are leaders. One is owned by the *Intendente*, who edits it vigorously and wisely. The other, the *Opposition Paper*, with just as much vigor and great plainness disagrees with everything the government does, whatever it is. Both have large circulations and both are excellent papers. I understand that the opposition paper said some very spicy things about me because I "bowed the knee to Baal." But I couldn't read them, so was able to preserve the even tenor of my self conceit.

There are a number of good clubs. The Yankee Consul put me up at the Pará Club, where I met the bankers and steamship and rubber men—American, German, and English—and had some really good exercise at billiards in spite of the sultriness that evening often developed.

Then a rubber importer in New York had written the president of the Sports' Club, who invited me to their functions. I also went to a ball at the Universal Club, which must have been a very swell affair, for the streets were lined with people who got their reward by seeing us go in and out.

The resident head of "Casa Alden" also asked me to soap my legs and come out to the Golf Club with him. The saponaceous preliminary that he advised is for the purpose of amusing "moqueens," small and active red bugs that live in the grass, outside of the city limits, particularly on golf



SALON IN THEATRO DA PAZ, PARÁ.

links. If one's legs are soaped the bugs get so engrossed with climbing up as far as the knee, then coasting down to the instep, that they forget all about biting.

THE PEOPLE OF PARÁ.

More interesting than a city are its inhabitants. The people of Pará are Brazilians and Portuguese. Although the former come largely from Portuguese stock they do not like to be mistaken for natives of the mother country, so proud are they of their own. They are a sensitive, hospitable, enthusiastic race, with a very decided genius for and appreciation of the fine arts. Many of the substantial business men are Portuguese, and one often sees exactly the same types as once made the men of Portugal the foremost explorers of the world. The better class in Pará are exceedingly well dressed, and no politer people are to be found anywhere.

It was "carnival week" while we were there, and there was ample opportunity to see the whole city at play. As the beautiful floats passed, the showers of confetti were constant and the flower fights vigorous. Then in the afternoon, when the rain drove the revellers indoors and the cafés were packed to suffocation, a little glass atomizer made its appearance. It was filled with perfume and sold for 4 milreis. How many thousands were emptied in the course of a few hours who can say? No one escaped who came within range, and for twenty-four hours every food product in the city tasted of perfumery. Through all the festivities I saw nothing but good-humored fun, and was wonderfully impressed with the graceful, unconscious courtesy of the people of this tropical city.

Speaking of hospitality, I wish I had space to describe in detail one dinner at the home of a wealthy and cultured Brazilian, a large owner of rubber lands in the Acre, that I enjoyed. It would take pages to picture the cool spaciousness of the dwelling, the beautiful courtyard garden, with its rare blooms and extensive orchid trellises, and the dinner itself, simple and appetizingly elegant, and my host, who in almost perfect English touched lightly on current events in Europe and America and showed a knowledge of Paris, London, Berlin, and New York that made me envious; but I know I couldn't do it justice, and I must pass it simply as one of my pleasantest memories.

Every winter that great educational institution, the Hamburg-American line, gathers together some hundreds of untraveled Americans and projects them upon the people of other climes. They learn many things in these voyages; that is, they have ample opportunity to do so.

Sitting at midday breakfast in the Café La Paz one morn-



SENADOR ANTONIO JOSE DE LEMOS.
[Intendente of Pará.]



DR. JOAO COELHO.
[Inaugurated Governor of Pará February 2, 1909.]



JOSE SIMAO DA COSTA.
[Alves Braga Rubber Estates and Trading Co.]

ing, I knew that one of these great excursion steamers had arrived, for the advance guard of the army that would soon overrun the city began to trickle in. They were a comely, well-dressed, respectable lot, and I viewed them with much interest. The self-conscious swagger (we are all afflicted with it) that the men took on because they felt that many strangers were looking at them in a foreign tongue, was most exhilarating. The half-pitying glances that they cast about were not contempt, but simply embarrassment. They were wondering in their innermost recesses what the well-dressed foreigners thought of these fine specimens of American manhood. And those foreigners, sitting erect over their breakfasts, were probably wondering what the wealthy and somewhat noisy Americans thought of the fine specimens of Brazilian gentlemen that they saw for the first time. Both were self-conscious to the last degree, only the Americans showed it and the Brazilians did not.

Having heard that Portuguese was the language of the country, the tourists had a feeling that no one there understood English, or at least not very well, and it came with rather a shock to me that I was also without the pale. My knowledge came this way. Two nice old chaps stopped in front of me and one said:

"Do you speak English?"

"A leetle," was my reply.

"Good! Well, we want to take a trolley ride and go as far as we can. Understand? See?"

"Si, Senor; you wish to go up in zee balloon. I can arrange him."

"No, no, don't do that. Not a balloon, a trolley car—goes on rails," showing me in pantomime how an electric car ran, and making a buzzing sound that was most illuminating.

"He is off his trolley, yes?" I remarked engagingly to his companion. Then, seeing he had left his sense of humor



JOAQUIM GUILHERME GONCALVES VIANNA.
[Junior partner of Mello & Co., Pará.]



A. J. HUTTON.
[With Gordon & Co., Pará.]



ANTONIO RODRIGUES ALVES.
[Alves Braga Rubber Estates and Trading Co.]

aboard the boat, and they were likely to get away, I went on hurriedly:

"Oui, yes, si, Senor, you wish the trolley tram. The zip car. It is run by zee door. Go out to Sousa. It's quite a long ride out to Sousa and a pretty one, and if you stay aboard the car it will bring you back, saving a transfer."

I got interested in describing these details and forgot my accent. Just as I finished one of the inquirers said:

"You speak very good English."

"So do you," said I.

"But I come from Boston," was his retort.

"So do I," was mine.

I forgot to say that before I left my table two tourists sitting at another facing me were enjoying huge glasses of excellent Brazilian beer. One of them, desirous of knowing the brew, held his glass aloft (he wore cotton gloves, by the way, to protect his hands from yellow fever mosquitoes) and, addressing me cordially, said:

"Pilsener? Is this Pilsener beer?"

"Thank you," I replied, courteously; "I drink only zee champagne. I should be glad of a little bottle." And I beckoned to his waiter, while he gulped the remainder of his drink and bolted.

THE CENTER OF THE RUBBER TRADE.

The center of the rubber interest in Para is, very naturally, where the houses of the great importers, or rather exporters, are located. These are on the water front and are not only easily located by the pleasant smell of rubber with which the air is permeated, but during crop arrivals by the great quantities of rubber arriving and departing in bulk and in cases, often temporarily piled everywhere and anywhere. The carelessness with which this valuable product is handled would be a shock to any member of the Rubber Stealings Committee. Evidently there is no rubber thievery in Pará.

A narrow street running from the water front up into the city, known as "Wall street," is where most of the rubber purchasing is done. When a steamer arrives with rubber for the various *aviadores* they gather on this street or in an open room that leads off from it, and the representatives of the big buyers being present, the various lots are disposed of. There are brokers, but they do only a fraction of the business.

Each of the rubber houses employs a very capable body of men who receive the rubber, cut and examine it, and pack it in boxes for shipment. The cutting of the rubber is an absolute necessity, as some lots are badly adulterated. This adulteration takes three forms: One, in which a milky juice called "tabatinga" is added to the latex, giving a short fibered rubber that is wholly without nerve. The second is the addition of "farinha," which increases bulk and weight, but also makes the rubber very short and pasty. The third is a mixture of sand and farinha, which is perhaps the worst of all. Wherever farinha is present, if the rubber has stood for any length of time, myriads of little ants are found in the pelles, living on the starchy contents. All of these adulterations are quickly detected by the cutters, who are very expert and who promptly throw out a ball that contains layers of this sort.

THE "WALL STREET" OF PARA.

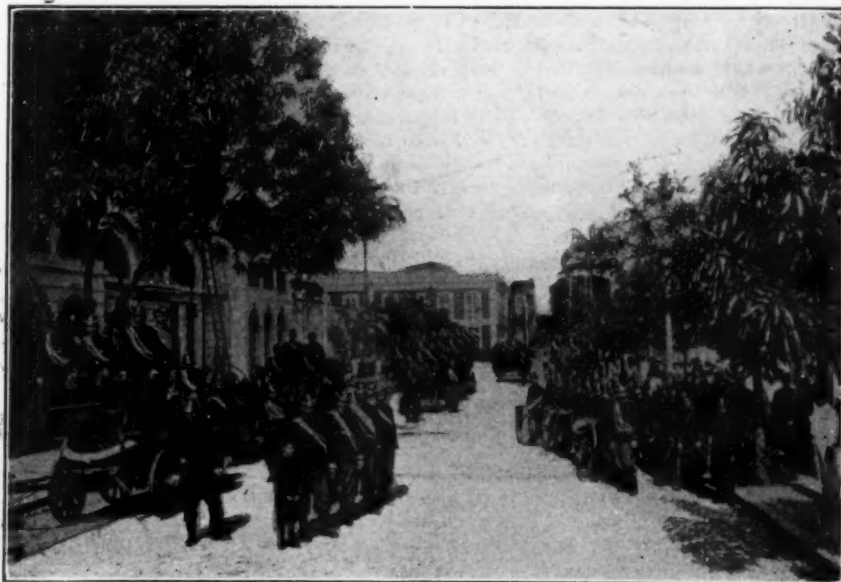
To refer again to "Wall street," time was when all the rubber buying was done in a saloon there, but that is a thing of the past, and while some is still sold in the "street," most of the purchasing takes place in the offices of the great operators. Most of the rubber is shipped in cases made of American pine. I saw a few boxes made of native wood, but the lumber was heavy and brittle and not to be compared with the imported white pine, either for safety or ease in working.

The rubber warehouse men are perhaps the best paid of any laborers in the city. They receive about \$4 a day, and extra for night work and Sundays. When rubber is arriving they work willingly night and day, often drenched to the skin by heavy tropical downpours, which they don't seem to mind in the least. But the laborers are not the only hard workers. When the gum is arriving the exporter, if he is in the market, is kept exceedingly busy. A single small steamer coming in from the Islands, where she stopped at perhaps a hundred landings, may have rubber from 200 or 300 shippers, consigned to 75 or 80 different houses. All of these interests, *seringueiros* and *aviadores*, knowing more or less about the market, are intent on getting the best price and also on the passing of any doubtful rubber without question. To do his own house justice and to satisfy the sellers keeps the exporter very busy, and he often works nights, but not out in the pouring rain.

The price at which rubber is sold in Pará and Manáos dominates the spirit of the people, and in boom times, when money is plenty, it is spent most lavishly. A rich Brazilian, even if it is only temporary wealth due to a sudden rise in the rubber market, will buy anything, from an automobile to an opera troupe, and plank down the cash with joy.

Pará, being the mother of rubber export, has not been without twinges of jealousy over the wonderful development of her daughter, Manáos. She never wished the child to come out of swaddling clothes, because she saw a decrease in rubber revenues as a result. Therefore "Manáos is unhealthy and not a place to visit"; "everything-in rubber worth seeing can be seen at Pará," et cetera.

Manáos also affects to scorn Pará. "She's old-fashioned and conservative"; "her rubber forests are rapidly being ex-



BARRACKS AND CORPS OF MUNICIPAL FIRE DEPARTMENT, PARA.



RAILWAY FROM PARA TO BRAGANCA.

hausted," and so on. Then when the representatives of these two great cities meet they are good friends and patriotic Brazilians. Their attitude reminds an American of the rivalry between Chicago and St. Louis. It harms no one, and it makes both cities more alert and aggressive.

It doesn't take very much perspicacity to figure out the fact that the rubber market is not made on the Amazon, but in the great outside centers, like London and New York. During the crop season in Pará the operators are in constant communication with their principals in Europe or America, and in semi-constant touch with their houses at Manáos. Each firm has its own cipher. None of them know each other's cipher; whether they know the rest of the numerals it is hard to say.

The houses that really do the bulk of the business are about a dozen in number, including Gruner & Co., who represent Heilbut, Symons & Co., of London, and Poel & Arnold, in New York; Adelbert H. Alden, Limited, who use the same name in London, and who in New York are the New York Commercial Co.; Gordon & Co., who represent the General Rubber Co., of New York, and William Symington & Co., Limited, in London; Suarez & Co., who have their own house in Europe, as do Alves Braga Rubber Estates and Trading Co.; and so on.

Pará has good cable communication with Europe, but rather round-about ones with America. The city is connected with Manáos by a cable which is laid in the bed of the Amazon and which gives good service except for occasional interruptions. If rubber is high, there are some who claim that the cable is purposely cut to keep the news from reaching Manáos until certain trades are effected. I only met one man who would acknowledge that he had actually seen the cut ends, and he was not an expert on cable matters, and might not have been able to tell a plain fracture from axe work. My own idea is that the river itself is perfectly competent to supply enough interruptions to suit anybody. Certain it is that one steamer is kept busy nearly all of the time attending to the thousand mile strand that binds the two rubber cities together.

There is also the wireless which proudly lifts its head to heaven at Pará and Santarem. When the concession for its installation was granted and the equipment began to arrive, what profound thankfulness filled the hearts of the many who were marooned in Manáos, often for a week at a time, hungering and thirsting for news of the outside world. Their hope of freedom, however, from the vexatious tyranny of the great river has so far borne no fruit. Messages were dispatched from either end, but failed to be received. The official explanation, I believe, was that the precipitation was so great as to interrupt them; or was it that there was too much air in the atmosphere? A more probable reason is that the messages sent in the daytime over the rubber forests were gummed up by the flowing latex and fell short of their destination. Nor were night messages any more successful. The big Brazilian fireflies, which are sporty things anyway,



RUA DA CEARENSES, PARA.

got in the habit of racing with the electric sparks and often times beating them. It will be evident to the most shallow thinker that an operator standing on a tower in mosquito ridden Santarem, with a butterfly net in one hand and a receiver in the other, sorting fire-flies from flashes, would at times be slightly inaccurate. And accuracy in matters wireless is a prime necessity.

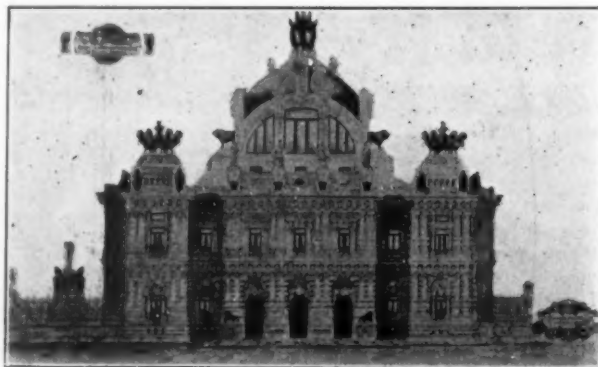
So Manáos did not get its relief, and the cable company have an extension of their contract and are to lay a second cable in the river bed.

DEALING WITH RUBBER FROM THE FOREST.

The beginning of rubber production is really with the *aviador*, who furnishes the rubber producer, or *seringueiro*, with all supplies and, in return, receives and sells his rubber. The *aviadores*, and there are hundreds of them, big and little, have outfitting places not far from the water front in Pará and Manáos. Some of them are not much more than offices; others are great and well-stocked stores. When an *aviador* discovers what a *seringueiro* is going to need for the coming season, he supplies what he may have from his own stock, which may be much or nothing. He then divides the order into dry goods, provisions, etc., making up separate orders for city merchants who handle these goods. They fill the orders, packed and delivered on the pier for shipment. The *aviador* then bills these goods, accepting in payment therefor notes that range from three to six months. These notes are discounted by the local banks, and sometimes are extended for another six months, if times are hard. The discount rates are from 10 to 24 per cent., according to the standing of the merchant.

The *aviador* is overcharged in his purchases about 50 per cent. by the general merchant. This is because of the risk that the latter takes, as some *aviadores* never pay at all, while others may not be able to pay for one or two years.

When the *aviador* receives rubber he sells it for the *seringueiro*, who is credited with the amount received. In remitting to the



PRINCIPAL FACADE PROPOSED NEW MUNICIPAL BUILDING.



ONE OF THE PARA HOSPITALS.

seringueiro, if money is sent the commission is 20 per cent.; if merchandise, 10 per cent.

In times past, according to the stories of some rubber merchants, it was an exceedingly easy thing to become an *aviador*. One asset only was necessary. That was the friendship of a director of a local bank. The man who planned to become an *aviador* would register his firm at the Junta Commercial with a capital perhaps of 50 contos. Through the director he would discount notes for that amount. This money would be used for buying shares in that bank, which would be pledged in another bank for a certain amount. This money he would deposit in a third bank. By this means the *aviador* was able to give two banks as references. In one of them he was a stockholder to the amount of about 45 contos, and in the other a depositor of 40 contos. Without a cent of money of his own, he would be rated as being worth about 100 contos. When he therefore sent letters to rubber producers offering to outfit them and sell their rubber, they were much impressed and he got the business.

The manner just cited is not the usual way, by any means, and it could not be done today. The bulk of the rubber business is built with real capital, and many of the *aviadores* are *seringueiros* who, selling their places or retaining them as they chose, established themselves in Pará or Manáos as *aviadores*. The *aviador* is the most generous man in the world in certain respects. He will gladly supply the *seringueiro* with two or three times as much as he orders, and when the proper time comes take a mortgage on his estates, and very rarely is the mortgage liquidated. Indeed, many times it is foreclosed and the *seringal* thereafter is the property of the *aviador*.

The *aviadores* also attend to another detail of the rubber gathering business, which is the arranging for contract laborers. Each year, before the beginning of the rubber season, they send agents to Ceará, Rio Grande do Norte, Parahyba and Piahy, where abide the hard-working Brazilians commonly known as the "Caerenses." They live very well by cultivating the land and raising cattle; that is, when the rains are regular; but one dry season works great havoc. Their crops are destroyed, the cattle die of hunger and thirst, and the Amazon and rubber gathering is all that stands between them and starvation. It is usually necessary for the agent of the *aviador* to advance a little money and pay the passage of the laborer to the *seringal*. These advances are later deducted from his earnings.

The Cearense, with what little baggage he owns, including always a gaudy handkerchief and a business-like stiletto is

loaded on one of the small river boats with hundreds of others and started on his journey. This is at the time of high water, the start being made in the latter part of March or the first part of April, and it is probably the beginning of May before the *seringal* is reached. Here he is installed in one of the thatched huts provided for the laborers, if he has his family with him; if he travels as a bachelor he may sling his hammock in a large thatched house with the rest of the unmarried men.

A *seringal* is really a little village, which centers about the big frame house roofed with tile where the manager lives, where is also the office and the store. Round about this are grouped the thatched huts of the laborers. These villages are located on rising ground beyond the reach of the river, and cut off as they are from the rest of the world for months at a time, the manager is really absolute ruler.

The Amazon begins its great rise in December, and the land is not uncovered so that men can work until about the middle of May. During all of this time the tapping of rubber trees is discontinued. The laborers who remain spend their time in smoking and sleeping and in endless trivial gossip. Occasionally they take too much "cachaca" and do some desperate fighting. According to a physician whom I know, whose practice lies in the waterways above Iquitos, the Cearenses do a good deal of shooting at each other. One of his chief duties was the extraction of bullets from rubber gatherers' arms and legs. He said they never seemed to hit each other in the body, and it was only rarely that one was killed. His fee, incidentally, for extracting a bullet was paid in rubber, and at present prices would be about \$1,000.

As has been often explained, a tropical forest rarely shows a preponderance of any one kind of tree. It is a heterogeneous crowding of hundreds of different kinds of trees, criss-crossed and lashed together by giant vines. Where the rubber trees flourish they may be thirty feet apart or hundreds of feet apart. They certainly are never close together. In order to work them, narrow pathways are cut through the forest, leading from one tree to another in some general direction, until 50 or 60 trees have been located. The path then turns, either to the right or to the left, and is continued back to the central camp from rubber tree to rubber tree. This makes a very irregular ellipse and is called an *estrada*, or path.

The rubber gatherers do not waste effort, and if the reader has pictured a sylvan pathway, broad and smooth and easy to traverse, he is going too far. A stranger, unused to a forest, would never suspect the existence of these paths, and once he was on one would have difficulty in following it.

[TO BE CONTINUED.]



HUT OF A SERINGUEIRO NEAR PARA.

Rubber Plantation Results.

THE INDIA RUBBER WORLD is in receipt of several letters of inquiry respecting a recent article in a popular magazine (*The Saturday Evening Post*), the evident purpose of which is to discredit the reports of large dividends paid by rubber plantation companies. The passage in this article which has induced most of these inquiries is quoted here—from a supposititious dialogue between an intending investor in rubber and a friend who dissuaded him:

" . . . Keep your two thousand, my boy. Put your money in the bank, and forget you ever heard of rubber."

The red haired man gasped.

"But the Vallambrosa company declared a dividend of 80 per cent.—" he began.

"It did, and that was exactly twenty years after its formation; during that twenty years no dividend was heard of. It figures down to 4 per cent. a year. Are you going to wait twenty years and then give the stock to your daughter for a wedding present?"

The ruby haired gentleman hesitated.

We believe the Vallambrosa Rubber Co., Limited, was registered in Edinburgh, April 22, 1904, so that it lacks fourteen years of being twenty years old. The company was formed by combining three neighboring estates, privately owned, on which some rubber had been planted in each year, beginning with 1898. The oldest rubber, therefore, is just now 12 years old. When the company was two years old, and the oldest planting had reached an age of 8 years, the company had marketed 39,113 pounds of rubber, at a handsome profit, but no dividend was declared in that year. The subsequent record has been, of yield (in pounds) and dividends paid:

DATE.	Yield.	Dividend.
Year ending March 31, 1907.....	156,922	55 %
Year ending March 31, 1908.....	225,302	55 %
Year ending March 31, 1909.....	272,741	80 %
Year ending March 31, 1910.....	370,902	66 2/3 %

[a—The accounts for the year have not been published; only an interim dividend has been declared; it is expected that the total for the year will exceed 80 per cent.]

Assuming that the dividend for last year will be 80 per cent., the Vallambrosa shareholders will have realized a yearly average of 45 per cent., from the date of organizing their company. Or, dividing the declared profits by 12, the average is 22 1/2 per cent., but this would be an unfair treatment of the subject, since so large a proportion of the company's trees are not yet 12 years old.

With regard generally to the age of cultivated *Hevea* trees now productive in the Far East, only a small percentage appear to have reached the age of 12 years. The latest declaration of dividends of several leading companies, and the published statistics of their trees at April 1 of this year can be stated as follows:

	Per Cent.
<i>Selangor</i> .—Twelve years, 188 acres; eleven years, 116 acres; ten years, 231 acres; less than ten years, 970 acres.....	287 1/2
<i>Linggi</i> .—From 6 1/2 to twelve years, 62,000 trees; under 6 1/2 years, 579,000 trees.....	165
<i>Pattaling</i> .—From seven to twelve years, 35,730 trees; under seven years, 168,304 trees.....	125
<i>Anglo-Malay</i> .—Twelve years and over, 612 trees; ten to twelve years, 11,942 trees; not over ten years, 549,434 trees.....	80
<i>Bukit Rajah</i> .—Six to twelve years, 111,432 trees; under six years, 175,183 trees.....	60
<i>Federated (Selangor)</i> .—Eleven years, 6 acres; eight years and under, 1,077 acres.....	60
<i>Cicely</i> .—Nine years, 259 acres; five years and less, 670 acres.....	50
<i>Batu Caves</i> .—Seven to nine years, 239 acres; six years and under, 992 acres.....	50
<i>Damansara (Selangor)</i> .—"In bearing," 400 acres; six years and less, 969 acres.....	50

SOME OTHER RUBBER PLANTATION YIELDS.

THE yield of The Beverlac (*Selangor*) Rubber Co., Limited, for the calendar year 1909 was 78,128 pounds. The cost of pro-

duction, with charges for putting the rubber on the market is stated at the equivalent of 30.65 cents (gold) per pound, against 37.31 cents in the preceding year.

Consolidated Malay Rubber Estates, Limited, in Negri Sembilan, Federated Malay States:

	1906.	1907.	1908.	1909.
Yield (pounds).....	32,693	63,615	111,585	215,293
Selling price, net.....	4s. 11.77d.	3s. 6.14d.	4s. 2.22d.	7s. 2.07d.
Equivalent to.....	\$1.21.1	85.4	\$1.01.7	\$1.06.7
Dividend.....	10%	10%	17 1/2 %	80%

The cost of the rubber, f. o. b. is figured at 11 1/4 d. per pound; with London charges added, the figure is 1s. 5d., without including any part of administration charges.

Linggi Plantations, Limited, in Negri Sembilan, Federated Malay States:

	1906.	1907.	1908.	1909.
Yield (pounds).....	17,229	110,741	284,873	545,219
Selling price, net.....	5s. 0.60d.	3s. 3.83d.	4s. 2.55d.	6s. 1.8d.
Equivalent to.....	\$1.22.8	.80.7	\$1.02.4	\$1.49.5
Dividend.....	15%	20%	60%	165%

[Yield in 1905—2,800 pounds; dividend 4%.]

The capital of the company is £100,000. The profit for the last year was £166,743 16s. 5d. The number of trees tapped, of all ages, was 151,796, and the average yield per tree 3.52 pounds. The average cost of rubber, f. o. b., is figured at 11.34d. [=23 cents, gold] per pound.

NEARLY 300 PER CENT. ON SELANGOR SHARES.

It is to be noted, in the latest report of the Selangor Rubber Co., Limited, in the Federated Malay States, that none of their trees are above 12 years old, and the company have been heavy dividend payers for four years past. A comparative statement for four years follows:

	1906.	1907.	1908.	1909.
Yield (pounds).....	70,577	120,524	189,979	326,654
Selling price, net.....	5s. 1 1/4 d.	3s. 10d.	4s. 1 1/4 d.	6s. 7d.
Equivalent to.....	\$1.24.6	93.2	\$1.06.4	\$1.60
Dividend.....	40%	41.6%	75%	287 1/2 %

During these four years the shareholders have had returned to them an average of 111 per cent. of their capital. The amount outstanding is £30,000 [= \$145,995].

FORWARD SALES OF RUBBER.

THE Gallawatta (Ceylon) Rubber Co., Limited, have entered into a contract to deliver 30,000 pounds best quality of their 1911 crop at 6 rupees [= \$1.94.6] per pound.

The Manikande Rubber Co., Limited, of Ceylon, have sold forward 7,000 pounds of their 1911 crop at 5 rupees [= \$1.62.2] per pound.

The current year's product of the Udupolla Rubber Co. has been sold at 5.50 rupees [= \$1.78.4] per pound.

The Straits Settlements (Bertram) Rubber Co., Limited, have sold forward their 1911 sheet and crepe rubber at 11 shillings [= \$2.67.6] per pound.

GERMAN INTEREST IN RUBBER PLANTING.

A LIVELY interest exists in Germany in investments in rubber plantations, particularly in German colonial possessions. A considerable amount of rubber is reported to have come forward already from such plantations in German East Africa and New Guinea. In the latest issue of "Adressbuch der Deutschen Gummi-, Guttapercha- und Asbest-Industrie" appear the names and addresses of no fewer than 63 rubber planting companies having their headquarters in German cities, 34 of these being domiciled in Berlin. Of the latter the capitalization of 26 is mentioned with a total of 41,326,300 marks [= \$9,835,659.40]. On the boards of some of these are some leading German rubber manufacturers, as in the case of Herr Emil Spannagel, director of Vereinigte

Berlin-Frankfurter Gummiwaren-Fabriken, who is on the board of Kautschuk-Pflanzung "Meanja" Actiengesellschaft. Actively interested in the development of rubber planting, as well as in the exploitation of forest rubber in German colonial possessions, is Dr. Otto Warburg, the chief editor of *Der Tropenpflanzer*, published by the Kolonial-Wirtschaftlichen Komitee, and connected with the royal botanical gardens at Berlin.

QUALITY OF RUBBER AND THE AGE OF TREES.

ACCORDING to the *Malay Mail*, Mr. Davis, manager of the General Rubber Co., of New York, has informed Mr. Maurice Maud, manager of the Cicely Rubber Estates Co., Limited (Federated Malay States), that, according to his investigations, there is scarcely any difference in the quality of rubber extracted from trees 4½, 5, 9, 10, 17, and 27 years old. It appears, therefore, that the age of the trees, at least as far as the *Hevea* is concerned, is by no means a factor of such importance as it was hitherto considered to be.—*Der Tropenpflanzer*.

The subject of the age at which *Hevea* trees become tappable is treated in a recent publication, "The A B C of Rubber Planting Companies in Malaya," by M. Sidney Parry, who writes:

"It is now becoming a universal practice to commence tapping when trees are 4 years old. And experiments made over large areas during the last two years have proved conclusively that trees are not harmed by being lightly tapped when they are 4 years, or even 3½ years old, always provided that the girth at 3 feet from the ground is, say, 16 inches, and we have learned this from practical experience."

RUBBER PLANTING IN JAVA.

THERE appears in a recent number of *The Ceylon Observer* an interview with M. Jacob, a director in a company owning a large rubber plantation in Java. He reports that there is very little *Hevea* rubber in Java over 4 years of age, but that trees at 4 years have reached a girth of 23 inches 3 feet from the ground, and that tapping is being commenced at this age. He says that as a rule planted rubber trees in Java 4 years old are as well advanced as at 5 or even 5½ years in Ceylon. The greatest amount of capital put into rubber in Java thus far has been Belgian. Among recent visitors to the Dutch East Indies was M. Grisar, of Antwerp, important in the crude rubber trade there, who, it is understood, was planning to float a new rubber planting company on arriving at home.

"CASTILLOA" RUBBER IN CHIAPAS (MEXICO).

TO THE EDITOR OF THE INDIA RUBBER WORLD: In view of the fact that your valued journal has given particular attention to the progress of rubber growing and results attained therefrom, I take pleasure in acquainting you with the results obtained on our plantation in Mexico for the first tapping season, just closed. While something in the way of reports on the tapping of special trees has been published, by the plantations in our district, lying along the Tulija river in the department of Palenque, I am not aware that any report has ever been made covering extended tapping operations, taking all the trees as they stand in a given area, tapped by the native laborer, which must manifestly be the only basis on which results can be figured as yet.

Due to excessive rains, our tapping operations were not entirely completed on all of the trees, but so far as completed a total number of 9,987 were lightly tapped, by the full herring bone method, first on one side, later on the other side, the cuts about 18 inches apart as high as a man could reach. Later some of the trees were again tapped above the first tapplings. Of the trees tapped, 25 per cent. were four years old, 60 per cent. five years old, and 15 per cent. six years old. The total yield was 1,550 pounds, or an average of 2.483 ounces per tree. The six-year-old trees yielded from 4 to 6 ounces, or an approximate average of 5 ounces per tree.

Tapping was commenced the latter part of September, 1909,

and closed about the middle of March, 1910. The total cost per pound of this small lot of rubber, laid down in New York, approximates 28 cents, which will be materially reduced as the production increases. Recent experiments made on the first trees tapped demonstrate that they could again be tapped at the present time with no apparent diminution of the flow of latex. The work was done with a special knife devised by our manager, by the use of which the cuts heal up perfectly smooth, with no appreciable damage to the trees. J. B. SANBORN,

President [Orizaba Rubber Plantation Co.].

Chicago, April 12, 1910.

GOOD CEARÁ RUBBER.

A SMALL lot of Ceará, offered on the Colombo market on April 19, was valued at 9.50 rupees [= \$3.08] per pound. The *Ceylon Observer* says: "This was very thin white biscuits, which, being almost devoid of the usual bad smell of Ceará, and the characteristic 'powdery white,' were almost indistinguishable, except by the expert, from Pará biscuits." The local price for the finest Pará crepe on the same date was 10 rupees [= \$3.24½].

THUNDERATION IN A RUBBER DISTRICT.

A SEVERE thunderstorm, accompanied by very heavy rain, has destroyed some thousand rubber trees on the Jebong estate, and several other estates in the district have also suffered considerably.—*Times of Malaya* (April 2).

FORWARD SALES OF RUBBER.

THE forward sales of rubber under contract by a number of plantation companies, particularly in Ceylon, have been reported from time to time in THE INDIA RUBBER WORLD. Most of the forward sale contracts now in effect were made at prices less than one-half of what have been realized lately at the London auctions, in consequence of which there has been a natural note of discontent among shareholders.

Ceylon newspapers have contained not a few communications from holders of planting shares asking what would happen if rubber prices should "break" below the contract prices; could the buyers be held to their contracts?

A Singapore paper has printed an editorial suggestion that the forward sales on the part of some companies may have been made with a view to a favorable effect upon the prices of shares of the companies most nearly concerned. This idea, however, seems not to have met a general adoption, and THE INDIA RUBBER WORLD has seen no reason to suppose that any forward sale has been made for any such purpose.

An interesting feature of the proceedings at the fourth annual meeting of The Consolidated Malay Rubber Estates, Limited (London: April 27), was a speech by Mr. John Loudoun Shand, a director and one of the secretaries of the company, in the course of which he said:

"When we met last year I congratulated you on our having been able to declare a dividend of 17½ per cent., which was considerably more than we had expected to be able to pay, and I think I have cause still more to congratulate you this year on the directors being able to recommend a dividend for the year of 80 per cent. I also mentioned last year that the average net price that we had obtained for our rubber in the previous year was 4s. 2d. per pound, and that we had begun the year well by selling our first two or three consignments at an average of 5s. per pound. I hoped in my heart of hearts that we might be able to maintain that average, though I did not feel very sure of it; but none of us, in old wildest dreams, thought our average price of 4s. 2d. per pound would be converted into a net average of 7s. 2d. this year. Many offers have been made to us from rubber philanthropists in all parts of the world—from Colombo, New York, and elsewhere—to place us in a comfortable position by buying our crops in advance; but so far we have refused these philanthropic advances." [Hear, hear.]

The India-Rubber Trade in Great Britain.

By Our Regular Correspondent.

IN the ceaseless flood of new rubber promotion one or two have considerably more interest—either scientific or technical—than others, and I have selected these for a few comments. These are the Madagascar Rubber Co., Limited, with a capital of £350,000, and the Crude Rubber Washing

NEW COMPANIES.

Co., Limited, with a capital of £250,000. Both of these are promoted by the London Venture Corporation, Limited, with which British Murac Syndicate is also connected, and the two new companies have certain business arrangements with each other. It is not, however, their family connection that I am concerned with, but rather their particular objects.

Briefly summarized, the Madagascar company has obtained rights over a large area in that island, where rubber vines are abundant, and it is intended to cut these down and extract the rubber in the new patent Guignet machine, with which experiments have for some time been carried on at Lyons in France. At present it appears that the native methods of extraction, without cutting down the vines, yield only a small proportion of the available rubber, while the machine gives about 3 pounds of rubber from 55 pounds of bark. I cannot go into the details of the construction of the Guignet machine, but I imagine it cannot be anything very different from what I understand has been in operation for some time in the American guayule districts.

The prospects of the Madagascar company seem to depend a good deal upon the natural reproduction of the rubber vines from seedlings. This is a matter as to which Mr. Hamilton Spence, in his report to the company, expresses himself as being in no doubt whatever, and I have not come across any expressed opinion to the contrary. There seems no reason why this improved method of obtaining *Landolphia* rubber should be confined to Madagascar, and probably others having got hold of a colorable imitation of the Guignet machine will start operations in West Africa. The new Madagascar rubber is to come in the market in a comparatively pure and clean state, and as this is a development to be expected in the case of the products from all the new African companies, it would seem that the prospects for the second company I have mentioned do not seem over bright.

The Crude Rubber Washing Co. prepare, by means of a new washing machine patented by Morland Dessau, of Murac fame, to buy dirty rubber, wash it and sell it to the rubber manufacturers. This is really only an extension of a business which has already been carried on for two years by the British Murac Syndicate, though no details of the profits are referred to in the prospectus. The new company estimates a profit of 25 per cent. on its total capital by the annual sale of 1,000 tons of standardized washed rubber. The company has the exclusive rights of the Guignet rubber cleansing machine for the United Kingdom, the continent of Europe, the United States of America, and the Dominion of Canada. This machine, I may mention, has not yet been patented in the United Kingdom, though the Murac-Dessau machine has already reached this stage.

Personally I have no interest or connection with any rubber washing machinery, but having seen in operation the new patent "Universal" washer of Werner, Pfeiderer & Perkins, there does not seem to be much difference between this and the Dessau machine, to judge by the description of the latter given in the prospectus. In his report on the Dessau machine Mr. Herbert Wright refers to the probability of large manu-

facturers, who have put down expensive plants, preferring to continue washing their own raw rubber for some time to come. And if this is the case with those firms having the ordinary washing rolls, how much more will it be the case with firms who have already installed or have in order the Pfeiderer Universal washer?

I understand—though the information does not emanate from the makers—that no more orders for this machine can be booked for some months to come, owing to the number now under construction. Apart from the large manufacturer, there are no doubt many of the smaller ones who, as Mr. Wright says, doubtless will find it a convenience to be able to obtain definite brands of rubber already washed. It is somewhat of a novelty to see the name of Mr. James Swinburne, the well-known engineer, in connection with a report on a new rubber machine. In his report he says he understands the rubbers he saw washed were Mozambique and maniçoba, and he states that the washing is thorough. He does not, however, state whether he arrived at this conclusion by inspection only, or whether the conclusion was based on analysis.

With regard, in conclusion, to the general question of the improved washing of dirty rubbers it is clear that as time goes on the matter will become of much less importance. Already great improvement is noticeable in many African grades, and the increased supervision now to be met with in forest areas means greater purity in the product. Quite a large number of rubber washing machines have recently been sent out from England to the west coast of Africa so that rubber washing may be performed before shipment, and with improved methods of collection the present labors of these machines must tend to become lighter.

The whole of the capital of the Crude Rubber Washing Co., Limited, was subscribed by the promoters, directors and friends, and within a week or so the shares were standing at £4 premium, which shows great faith in the prospects of the company, though at the same time I may say that most of the new issues have been at once rushed to a premium. Of course the new washing machines, of whatever patent, have still to show what their wear and tear is, compared with the old-fashioned rolls, and there are not wanting those who prophesy the return of the rolls to first favor on account of the expense of upkeep of the more complex machinery.

It goes without saying that the continuing of high prices is a matter of considerable anxiety for many manufacturers. Those

POSITION OF TRADE.

who bought largely some time ago have cause to congratulate themselves on their astuteness, as they can reap the advantage of the recent advances in the price of goods, and are also in a position to dispose of any rubber they do not require, at a considerable profit. Some of the most important firms are refusing to make any contracts for goods at the present time, and there are firms who contracted for the manufacture of goods some time ago without covering their requirements of rubber. Needless to say, in such cases the situation is a decidedly awkward one. Some recent remarks of mine about the waterproof branch need modification, as the Master Waterproof Garment Manufacturers' Association, at a meeting in Manchester on April 4, decided to raise the price of garments 20 per cent., and piece goods 15 per cent. This decision has given great satisfaction to the individual members of the association, who had been for some time urging some such concerted action.

"PLEASE say in your report how much pure Pará rubber there is in the vulcanized rubber." This request is frequently

RUBBER RESINS.

found in the letter accompanying samples of rubber goods sent for analysis, but I need hardly say that in the present state of our knowledge it is quite impossible for the analyst, expert or otherwise, to give the figure sought with any degree of accuracy, and I think it is always advisable to avoid answering the query at all. In the light, then, of this deficiency in analytical procedure, it is interesting to note that some progress appears to have been made recently in Germany in filling up this hiatus. Messrs. F. W. Hinrichsen and J. Marcusson have been studying the optical activity of various rubber resins, and find a definite figure for the specific rotation in the bulk of such resins, except those derived from Brazilian and Ceylon Pará rubber. As one or two other resins are also optically inactive, it is not possible to say whether the rubber in a particular mixture is all Pará or not, but it is possible to say that whether there is any optical activity the rubber is not all Pará. At least, this is the authors' conclusion, and it will hold until some other German writes a paper showing that the data on which the conclusion is based are unreliable. The action of alkalies has also been studied by the authors, and it has been found that it is, in the main, the unsaponifiable part of the resins which shows the optical activity. In a further paper by Hinrichsen and Kindscher it is pointed out how the attempt to arrive at the quality of rubber used in a mixing by the determination of the resin content may easily lead to erroneous conclusions; ceresin was, for instance, causing an increase of resin on vulcanization. In this paper the previous statement as to the optical activity of the unsaponifiable part of the rubber resins is re-affirmed on the authority of further experiments. The matter is certainly of great interest, and doubtless it will attract attention in laboratories where the necessary optical instruments are available. As the whole of the resin in gutta-jelutong is found to be insoluble in semi-normal alcoholic potash, while the other resins mentioned all saponify to some extent, it would seem that we have at disposal a method of saying whether jelutong alone has been used in any particular compound.

On April 6 the comparatively new building of the garment department of the proofing works of Messrs. Frankenstein & Co., at Newton Heath, Manchester, were completely gutted by fire, though the walls of the building remained standing. By the efforts of Manchester fire brigade, aided by the works' brigade, the fire was prevented from spreading to the main building where the bulk of the machinery is situated. It is not so long ago that another fire occurred at these works, the naphtha tanks somehow or other becoming ignited.

JOTTINGS.

Colonel R. K. Birley, of Messrs. Charles Macintosh & Co., Limited, is a director of the new Sablas (North Borneo) Rubber, Limited. In this respect I have heard some surprise expressed that the fact of his connection with the well-known manufacturing firm was not indicated on the prospectus. I don't know, however, that this matters at all in these days, when all new rubber companies are oversubscribed for on the strength of reports made by mining engineers. In the rush to get shares the public do not stop to scrutinize the list of directors, or to enquire whether a director knows anything at all about rubber.

The struggles of the stock brokers with the names of some of the new rubber companies remind me of the efforts made by ready-money bookmakers at Epsom when shouting the foreign names of horses to the Derby crowd. "That's what we call it, anyhow," said a broker testily when I remonstrated with him on his pronunciation of a certain company.

Despite the dismal results achieved so far by synthetic rubber companies, the game goes on merrily, with new supporters. The patent is to be sold for such a fabulous sum of money that those who have a special offer of getting in at bed rock for £25 or £50 frequently succumb to the temptation.

Among the papers down for reading at the International Congress of Cold to be held at Vienna, October 5, is one by Mr. H. L. Terry, entitled, "Applications of Cold in the India Rubber Industry." Among the large number of countries which will be represented at the congress may be mentioned the United States, the Argentine Republic, Brazil, and Mexico.

INCREASE IN THE GUAYULE TRADE.

WHILE no exact figures are available as to the exact amount of guayule rubber produced or sold, a fair idea can be gained from the statistics of Mexican crude rubber generally. Before the appearance of guayule in commercial quantities, the exports of rubber from Mexico averaged less than 400,000 pounds annually, and it is probably that they do not now exceed 600,000 pounds. It may be assumed, therefore, that the figures given below, in excess of 600,000 pounds yearly, relate to guayule:

UNITED STATES IMPORTS OF MEXICAN RUBBER.

	Pounds.	Value.	Average.
Year ended June 30, 1904.....	366,104	\$148,921	40.7 cents.
Year ended June 30, 1905.....	352,690	185,951	52.7 cents.
Year ended June 30, 1906.....	1,705,915	866,283	50.6 cents.
Year ended June 30, 1907.....	7,175,097	2,877,022	40.1 cents.
Year ended June 30, 1908.....	9,269,443	3,888,684	41.9 cents.
Year ended June 30, 1909.....	15,460,365	5,466,904	35.3 cents.
Nine months, ended March 31, 1910.....	16,905,054	7,017,010	41.5 cents.

MEXICAN EXPORTS OF CRUDE RUBBER.

[Official Returns for Years ending June 30.]

To—	1906-07.	1907-08.	1908-09.
Germany.....pounds	2,016,230	2,067,872	172,905
Belgium.....	33,211	196,084	736,435
Spain.....	35,380	46,266	.....
United States.....	8,128,380	9,788,962	12,167,767
France.....	105,787	39,827	109,756
Great Britain.....	1,855	230,351	45,874
Canada.....	.....	783	.....
British Honduras.....	114	961	220
Panama.....	.....	535	.....
Italy.....	282	.....	.....
Cuba.....	.....	.....	425
Total.....	10,321,248	12,372,241	13,233,382

The exports for the four months of July, August, September and October, 1909, are officially reported at 4,034,241 pounds.

GUAYULE SHRUB.

The exportation of the guayule shrub, to be worked into rubber elsewhere, is increasing at a rapid rate, in spite of the export duty imposed. The figures are:

Fiscal year 1906-07.....pounds	1,471,226
Fiscal year 1907-08.....	2,844,325
Fiscal year 1908-09.....	6,649,416

From the beginning the greater part of the shrub exported has been taken by the United States, the share of this country during the last year having been 77 per cent. The remainder goes principally to Germany.

THE eighty-seventh birthday of Herr Geheimer Kommerzienrat Wilhelm Herz, senior partner in the firm of S. Herz, rubber goods manufacturers of Berlin, was celebrated on April 25. Mr. Herz, who still fulfills his duties as president of the Berlin chamber of commerce, was able to join in the celebrations and to receive the congratulations offered him from near and far. The chamber of commerce building was decorated with flags in his honor.

Recent Patents Relating to Rubber.

UNITED STATES OF AMERICA.

ISSUED APRIL 5, 1910.

- N**O. 953,700. Flexible coupling. D. E. Maxfield, Dorchester, Mass., assignor to B. F. Stuyvesant Co., Boston.
 953,735. Tire trunk. H. Cohen, New York City.
 953,736. Tire trunk. Same.
 953,873. Metal tire shield. A. J. Walker, Hooker, Okla.
 954,066. Baby comforter. W. F. Ware, Philadelphia.
 954,076. Removable rim wheel. R. H. Buckingham, assignor of one-half to C. Pickard, both of Chicago.
 954,224. Vehicle tire. [Solid.] B. C. Swinehart, Akron, Ohio.
 954,225. Vehicle tire and fastening means therefor. J. A. Swinehart, Akron, Ohio.
 954,232. Tread for pneumatic tires. F. G. Ward, Pittsburgh, Pa.
 954,255. Vehicle tire. H. O. Clark, New York City.
 954,333. Tire tread. D. T. O'Sullivan, West Orange, N. J.
 954,348. Hose coupling. F. O. Schaefer, Wausau, Wis.
 954,361. Vehicle tire. H. B. Tobias, Hoboken, N. J.
 954,362. Tire armor. W. W. Tompkins, New York City.
 954,375. Demountable rim. E. J. Bushey, New York City.

Trade Mark.

- 47,361. Northern Shoe Co., Duluth, Minn. The word *Tamarack*. For rubber footwear.

ISSUED APRIL 12, 1910.

- 954,416. Demountable rim for automobile tires. W. N. Booth, Cleveland, Ohio.
 954,425. Vulcanizing iron. W. L. Dinsmoor, Longbeach, Cal.
 954,730. Tire protector. A. E. Goldman, Galena, Kans.
 954,807. Fire hose carrier. H. L. Jenkins, Bridgeport, Conn.
 954,844. Elastic non skidding tire chain. C. E. Abrams and C. H. Mason, Chatham, N. Y.
 955,053. Wheel tire. G. W. Crawford, Perth Amboy, N. J., assignor to The Safety Tire Co., a corporation of Maine.
 955,100. Heel for boots and shoes. S. Peterson, Boston.

Trade Mark.

- 47,167. Norvell-Shapleigh Hardware Co., St. Louis. The words *Norleigh Diamond*. For fruit jar rubbers.

ISSUED APRIL 19, 1910.

- 955,169. Armor for tires. W. W. Jones, Downs, Kans.
 955,188. Tire. [The tread portion interrupted at intervals with relatively soft rubber blocks.] L. M. Nelson, Pennington, N. J., assignor to Nelson Tire Co., a corporation of Wyoming.
 955,213. Wheel rim securing means. O. R. Schoenrock, Chicago.
 955,260. Garden hose supporter. A. Getman, Johnstown, N. Y.
 955,306. Antiskidding device. H. Barnett, Chicago.
 955,479. Vulcanizer. [Embracing an electric heating device.] C. A. Shaler, Waupun, Wis.
 955,509. Rubber sole protector for boots and shoes. E. Fuller, Providence, R. I.
 955,545. Spring wheel [with pneumatic tire]. F. P. Prendergast, Daguerre, Pa.
 955,634. Antiskidding tire. J. Corwin, Chicago.
 955,739. Removable cover for vulcanizers. A. Adamson, Akron, Ohio.
 955,831. Armor for tires. C. E. Titus, Springfield, Mass.

Trade Mark.

- 46,829. Turner Brothers, Ltd., Rochdale, England. The word *Peclos*, in a scroll, over the representation of a hound. For balata belting.

ISSUED APRIL 26, 1910.

- 956,076. Coupling [for hose]. E. T. Greenfield, Kiamesha, N. Y.
 956,077. Coupling. Same.
 956,100. Vacuum cleaner. R. B. Hutchinson, Wilkesburg, Pa.
 956,110. External guard for pneumatic tires. J. L. La Driere, Albuquerque, N. Mex.
 956,148. Vacuum cleaner. G. S. Bennett, San Francisco, Cal., assignor to Vacuum Specialty Mfg. Co., a corporation of Arizona.
 956,049. Method of vulcanizing rubber. H. E. Pendleton, Brooklyn, N. Y., assignor to the American Wringer Co.
 954,464. Pneumatic tire for vehicle wheels. A. Wolber, Vailly, Aisne, France.

[NOTE.—Printed copies of specifications of United States patents may be obtained from THE INDIA RUBBER WORLD office at 10 cents each, postpaid.]

GREAT BRITAIN AND IRELAND.

PATENT SPECIFICATIONS PUBLISHED.

The number given is that assigned to the Patent at the filing of the application, which in the case of these listed below was in 1908 and 1909.

*Denotes Patents for American Inventions.

- [ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, APRIL 6, 1910.]
 26,953 (1908). Spring wheel with rubber tire. N. Braibant, Brussels, Belgium.

- 26,954 (1908). Puncture preventing shield for pneumatic tires. V. Monturon, Noyon, France.
 26,970 (1908). Wheel with two rims for rubber tires side by side. F. Rogers, London.
 27,039 (1908). Heel for footwear strengthened by the insertion of a flanged metal plate. G. E. Smith, Wellington, New Zealand.
 27,077 (1908). Device for replacing tires in rims. W. S. Lemond, Bristol.

- *27,090 (1908). Process of drying and packing crude rubber for shipment. R. B. Price, Mishawaka, Indiana.

- 27,136 (1908). Spring wheel with rubber tire. P. J. Marmoune, Lyons, France.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, APRIL 13, 1910.]

- 27,200 (1908). Spring wheel with rubber tire. H. M. Bigwood, Wolverhampton, and another.

- *27,285 (1908). Non skid device for pneumatic tires. F. A. Fox, New York City.

- 27,297 (1908). Detachable rim flange for pneumatic tires. A. Anthony, Wolverhampton.

- 27,309 (1908). Pneumatic tire cover formed in circumferential segments. J. G. A. Kitchen, Scotforth, and another.

- 27,328 (1908). Method of device for tapping rubber trees. C. P. Hayley, Torquay. (C. Northway, Galle, Ceylon.)

- 27,336 (1908). Elastic telescopic spoke for vehicle wheels. L. A. Garchey, Paris, France.

- 27,431 (1908). Spring wheel with rubber tire. W. D. Douglas-Jones, London.

- 27,460 (1908). Detachable rim for pneumatic tires. G. Webb, Monmouth, N. J.

- *27,469 (1908). Spring wheel with pneumatic tire. M. W. Rosenshine, San Francisco, California.

- 27,516 (1908). Heel protector. G. L. Harrison, Norton-Trees, Durham.

- 27,530 (1908). Detachable rim for pneumatic tires. W. E. Rowcliffe, Manchester.

- 27,567 (1908). Method of reclaiming rubber. G. Capelle, Liege, Belgium.

- 27,629 (1908). Air tube for pneumatic tire. E. Williams, Llanvethorne, Abergavenny.

- 27,633 (1908). Metallic non skid band for pneumatic tires. G. Harris, Cheddar, Somersetshire.

- 27,688 (1908). Elastic product similar to india-rubber formed from tree gums and resins. R. W. Wallace, London, and G. Reynaud, Paris, France.

- 27,695 (1908). Tire air tube formed with closed round ends, either of which may be recessed to receive the other. J. N. Mollett, London.

- 27,854 (1908). Detachable rim for pneumatic tires. S. S. Rogers, Brestford, Middlesex.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, APRIL 20, 1910.]

- 28,205 (1908). Pneumatic or solid tire with threads formed with projections resembling saw teeth in longitudinal sections. C. H. Wilkinson, Huddersfield.

- 28,357 (1908). Non skid cover of metallic links for pneumatic tires. F. A. Fox, New York City.

- *28,369 (1908). Vaginal syringe. O. Katzenberger, San Antonio, Texas.

- 28,450 (1908). Artificial rubber. J. Blum, Brussels, Belgium.

- 28,473 (1908). Puncture proof and non skidding pneumatic tire. W. F. Macmullen and H. J. Parfitt, Torquay.

- 28,517 (1908). Toe cap for renovating boots. H. M. Brace, London.

- 28,527 (1908). Vehicle tire formed of blocks of rubber. H. Büssing, Brunswick, Germany.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, APRIL 27, 1910.]

- 11 (1909). Machine for cutting up rods or tubes of rubber. Bertrams, Ltd., and R. F. Gillespie, Edinburgh.

- 222 (1909). Protective tread for pneumatic tires. W. Craven-Ellis, Boydon, Cheshire.

- *265 (1909). Waterproof garment. G. Brewer, London. (A. W. Powell, Brooklyn, New York.)

- 344 (1909). Detachable rim for pneumatic tires. G. Webb Monmouth.

- 366 (1909). Inflating valve for tires, footballs, etc. H. Broomfield, Warrington.

- 410 (1909). Check valve. H. T. Blake, Ross, Herefordshire.

THE FRENCH REPUBLIC.

PATENTS ISSUED (with Dates of Application).

- 408,128 (Oct. 20, 1909). Société Anonyme du Temple. Tire.
 408,145 (Oct. 21). R. K. Gray. Electric conductor.
 408,150 (Oct. 21). Picheloup. Protection for pneumatic tires.
 408,260 (Oct. 25). Aktiengesellschaft Metzeler & Cie. Pneumatic tire.
 408,329 (Oct. 26). Olier et Cie. Vulcanizing press for pneumatic tires.
 408,355 (Jan. 21). Portier. Elastic tire.
 408,433 (Jan. 22). H. Patand. Elastic tire.
 408,451 (Oct. 29). J. C. Berry. Pneumatic tire tread.
 408,358 (Oct. 20). L. Gevaert-Naert. Process for the manufacture of pneumatic tire covers.
 408,540 (Oct. 23). G. Schulainire. Metallic tread for pneumatic tires.
 408,689 (Nov. 6). B. Souffrin. Pneumatic tire cover.

GOODRICH RUBBER BELTING



THE LARGEST FACTORY AND MOST COMPLETE EQUIPMENT IN THE WORLD FOR THE MANUFACTURE OF RUBBER GOODS

PINNACLE BRAND.—An extra high quality belt of friction-surface style. A better belt cannot be produced. Recommended for main drives and other places of hard usage.

MARATHON BRAND.—A light flexible friction-surface belt for planers and other high-speed wood-working machines. It does the work and does it right.

STERLING BRAND.—A belt of special construction, particularly adapted to mine elevators and oil well drilling.

GOODRICH AXLE LIGHTING.—Of special design, for railroad axle lighting. Being used successfully by many prominent railroads.

STANDARD GRADES.—**PILGRIM** and **ROB ROY** for all general work.

CONVEYOR BELTS FOR ALL CONVEYING USES
LONGLIFE BRAND for hard duty. **ECONOMY BRAND** for ordinary duty.

THE B. F. GOODRICH COMPANY
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NEW YORK BELTING AND PACKING CO., Ltd.

MANUFACTURERS OF A COMPLETE LINE OF HIGH GRADE
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Vulcan High Pressure Spiral Packing, "1846" Para Rubber Belting,
Magic Garden Hose, Air Brake, Air Drill, Steam,
Suction, Water Hose, etc.

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Every foot guaranteed
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We make everything
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Write for Catalog
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THE MECHANICAL RUBBER CO., CLEVELAND, OHIO



OFFICERS AND DIRECTORS OF THE UNITED STATES RUBBER CO.

1—Samuel P. Colt (president), 2—E. C. Benedict, 3—Lester Leland (second vice president), 4—Elisha S. Williams, 5—Anthony N. Brady, 6—James B. Ford (first vice president and treasurer), 7—Walter S. Ballou, 8—Homer E. Sawyer (general manager), 9—John D. Vermeule, 10—Frederick M. Shepard, 11—Henry L. Hotchkiss, 12—D. Lorne McGibbon, 13—Frank S. Hastings, 14—Harry E. Converse, 15—J. Howard Ford, 16—John D. Carberry (assistant secretary), 17—Samuel Norris (secretary), 18—Arthur L. Kelley, 19—W. G. Parsons (assistant treasurer), 20—Frank L. Hine, 21—W. H. Truesdale, 22—Edward R. Rice. [Of James Deshler, one of the new directors, no photograph is known to exist.]

The United States Rubber Co.'s Best Year.

THE eighteenth annual meeting of shareholders of the United States Rubber Co., incorporated under the laws of New Jersey, was held at the registered offices of the company in that State, at New Brunswick, on May 17. The operations of the company during the last business year and its condition at the close of the year are indicated in the annual reports of officers, as read and approved, and which are presented here:

PRESIDENT COLT'S REPORT.

TO THE STOCKHOLDERS OF THE UNITED STATES RUBBER CO.: The past year on the whole has been the most prosperous in the history of the company. The sales of merchandise by the United States Rubber Co. and its subsidiary companies, as also by the Rubber Goods Manufacturing Co. and the Canadian Consolidated Rubber Co., Limited, were larger than in any previous year, and the net profits likewise were greater.

The report of the treasurer appended hereto gives the consolidated general balance sheet and the consolidated income statement of the United States Rubber Co. for the fiscal year ending March 31, 1910.

The operations of the Rubber Goods Manufacturing Co., the Canadian Consolidated Rubber Co., Limited, and the General Rubber Co. are not included in the treasurer's report, but only the dividends derived from the United States Rubber Co.'s stock interest therein. The share of the undivided earnings of these companies for the year which appertains to such stock interest amounts to approximately \$1,700,000.

The increase in "Property and Plants" of about \$8,000,000 shown in the treasurer's report represents the investment in the Revere Rubber Co. and the total investment in the Canadian Consolidated Rubber Co., Limited.

VOLUME OF BUSINESS.

The sales of the company for the year were \$38,711,051.43 as against \$31,889,351.34 the previous year. Part of this increase, however, is accounted for by the higher selling prices which the company was compelled to establish owing to the higher cost of crude rubber and other materials.

The past winter was exceedingly favorable to the sale of rubber footwear and clothing. This is indicated not only by the increased volume of sales, but by the further fact that the stocks of goods in the hands of retailers, jobbers and mill warehouses have been materially reduced and in the aggregate are smaller than for many years past.

PROFITS.

As against \$4,507,655.39, the net profits for the year ending March 31, 1909, those for the present year are \$5,535,163.15, this net profit being after setting up \$500,000 as a "Reserve for Contingencies." Should we add to these net profits the company's share of the undivided profits of the companies in which it is a stockholder, which are not included in the consolidated statement, the profits for the year would be about \$7,235,000.

It will be observed by reference to the treasurer's report that all interest charges, including coupons on the \$19,500,000 funded debt, are deducted before this net profit is arrived at.

EXPORT BUSINESS.

The export business of the company was larger than in any previous year. The several foreign agencies for our standard brands are now established on a substantial basis, and we look for a steady growth of this branch of our business.

ECONOMY OF CONSOLIDATION.

Further progress has been made during the year toward con-

solidation of manufacturing with the view of producing goods with greater efficiency and economy; and other moves of this nature are now in contemplation, including the utilizing of one of our mills, not now in operation, for the growing business of the recently acquired Revere Rubber Co.

RUBBER GOODS MANUFACTURING CO. AND AUTOMOBILE TIRES.

The sales of the Rubber Goods Manufacturing Co. for the year ending December 31, 1909, were \$25,629,592.71, as against \$18,491,987.90 the previous year—the larger part of this increase being in automobile tires. The product of the Revere Rubber Co. amounted last year to about \$6,000,000. The brands of tires made by the Rubber Goods company are the "Hartford," "Hartford-Dunlop," "Morgan & Wright," and "G & J". The Revere company manufactures the "Continental" brand. Judging from the past, the growth of the automobile tire business will be of momentous importance in the future, and the Rubber Goods and Revere companies are well equipped to maintain their share of the tire business under the above standard brands.

CRUDE RUBBER.

There probably has been no period since rubber became an article of general and important use (following the discovery of its vulcanization by Charles Goodyear in 1838), when it has been so much talked of on both sides of the Atlantic as during the past year. The causes of this are the unprecedentedly high price of the article (fine Para and Ceylon rubber having reached about \$3 a pound as against a normal price of about \$1 a pound), and the formation of numerous companies, chiefly in London, to operate plantations in Ceylon, Sumatra, Java, Borneo, and the Malay peninsula. The profits of those plantations that are in bearing are very great—the market price of the rubber at the present time being eight to ten times the cost of production there, the Brazilian product now selling here for at least three times its cost of production. Though undoubtedly in some instances speculation in the securities of these companies has enhanced the price of their shares beyond reason, the future nevertheless promises, in the absence of some unforeseen calamity, good returns from investments made for the cultivation of the rubber tree in the Far East, even when rubber shall have returned to normal prices, which it will undoubtedly do when production shall have overtaken the consumption of the article. With almost unlimited forests of native rubber trees in Brazil and other tropical countries and an almost unlimited area in the Far East, upon which the rubber tree can be successfully cultivated, it would seem that rubber cannot be maintained indefinitely at a price from three to ten times the cost of production.

COST OF MANUFACTURE AS COMPARED WITH PRICE OF CRUDE RUBBER.

The subjects which are receiving most serious consideration by the directors and officers of the United States Rubber Co. are the present condition of the market for crude rubber, and the adequate provision for the needs of this company. Fortunately, it has obtained control, through the General Rubber Co., of a large stock of crude rubber, acquired at prices which enable it with some profit to maintain its standard of quality and to meet the demands of its customers, though it has recently been compelled to advance prices somewhat.

The wisdom of our establishing our own houses in Pará, Manáos, London, and Liverpool, which was done a few years ago, is manifest, and during the past year we have given much attention to every phase of the problem of bettering the conditions under which supplies of crude rubber are obtained. In this work special attention has been given to the initiation of plans for ourselves producing both in the Far East and in

Brazil the supply of crude rubber needed by the company, which we confidently expect will result in our obtaining in the not distant future from our own rubber properties a substantial portion of our requirements.

CANADIAN CONSOLIDATED RUBBER CO., LIMITED.

Some time since, the United States Rubber Co. purchased, through Mr. D. Lorne McGibbon, an interest in the Canadian Consolidated Rubber Co., Limited, which company manufactures about the same proportion of rubber goods consumed in Canada that the United States Rubber Co. and its subsidiary companies do in the United States. The result of two years' operations of the Canadian companies was such that your directors recently felt it desirable to increase our interest in the Canadian company. This has been done to such extent that we now own a very large proportion of the stock of the Canadian Consolidated Rubber Co., Limited.

We have recently acquired through that company a large interest in the "felt" business of Canada—a business kindred to the rubber business, and which, owing to the more severe climate of Canada, is of greater relative importance there than in the United States.

REVERE RUBBER CO.

The death of Mr. Charles H. Dale, president of the Rubber Goods Manufacturing Co., left that company without a practical rubber manufacturer at its head. It was most difficult to obtain the services of a skilled successor fitted for the conduct of this extremely important branch of our business, which embraces not only the item of automobile tires but substantially all lines of rubber goods other than footwear. Your president was con-

vinced that no need was more urgent than that of securing a skilled manufacturer, as competent as could be found, for the presidency of the Rubber Goods company.

Finally, in December, 1909, negotiations were opened with the general manager of the Revere Rubber Co., Mr. Elisha S. Williams. That company, with a capital stock of \$2,000,000, under his management had been developing for several years a large and successful business in the manufacture of tires, rubber thread, and mechanical rubber goods. Its annual output had reached \$6,000,000, and its capital stock (par \$100) was selling at \$200 a share. Mr. Williams indicated a willingness to accept the presidency of the Rubber Goods company, but only on condition that simultaneously his shareholders should receive an offer for all their shares in the Revere Rubber company at the stated market price. Prompt action was required and prompt provision of funds was necessary for such an offer. In its entirety the capital stock of the Revere Rubber company would be worth the market price, and more, to the United States Rubber Co., especially if its acquisition would procure the valuable assistance of Mr. Williams. Therefore, your president, together with some of the directors, decided that the purchase should be made and should be offered to the United States Rubber Co. upon their guaranty of a sufficient financial provision, if it should decide to accept the same upon the terms offered by them.

On December 10, 1909, your president made a preliminary contract with Mr. Williams which, upon December 17, was offered to and was accepted and adopted by your board of directors, and on or before December 24, substantially all of the Revere Rubber Co. stock had been acquired by or for the United States Rubber Co.

TREASURER'S REPORT.

UNITED STATES RUBBER CO. AND SUBSIDIARY COMPANIES.

[Not including Assets or Liabilities of Rubber Goods Manufacturing Co. and certain other Companies owned in part by United States Rubber Co.]

CONSOLIDATED GENERAL BALANCE SHEET, MARCH 31, 1910.

ASSETS.

Property and plants (including shares of R. G. M. Co., Canadian Consolidated Rubber Co., Ltd., and Revere Rubber Co.)	\$82,968,768.84
Inventories, manufactured goods and materials	\$16,016,985.86
Cash	3,599,555.96
Bills and loans receivable	2,136,417.42
Accounts receivable	11,080,361.84
Stock owned in General Rubber Co.	2,000,000.00
Securities, including stock of United States Rubber Co. held by a subsidiary company	2,991,473.15
Miscellaneous assets	138,366.40
Total assets	\$120,931,929.47

LIABILITIES.

Capital stock, first preferred	\$40,000,000.00
Capital stock, second preferred	10,000,000.00
Capital stock, common	25,000,000.00
Ten-year 6% collateral trust sinking fund gold bonds*	\$19,500,000.00
Less bonds unsold	2,500,000.00
Advance on \$2,500,000 of said bonds	\$2,500,000.00
Loans and notes payable	4,947,077.55
Merchandise accounts payable	710,256.53
Accrued interest, taxes, etc.	422,480.24
Due General Rubber Co.	2,830,425.09
Reserve for federal excise tax, if upheld	37,243.39
Reserve for doubtful accounts	100,000.00
Reserve for contingencies	500,000.00
Reserve for dividend	950,000.00
Fixed surplus (subsidiary companies)	8,134,849.37
Surplus	7,799,597.30
Total liabilities	\$120,931,929.47

The contingent liability for certain guarantees, which are offset by corresponding contingent assets, is not included.

*\$500,000.00 of the original issue of \$20,000,000.00 bonds have been canceled under sinking fund provision.

CONSOLIDATED INCOME STATEMENT FOR YEAR ENDING MARCH 31, 1910.

Gross sales, boots and shoes and miscellaneous	\$56,305,017.00
Net sales, boots and shoes and miscellaneous	\$38,711,051.43
Cost of goods sold	29,884,457.31
Manufacturing profits	\$8,826,594.12
Freight, taxes, insurance, general and selling expenses	1,831,722.40
Operating profits	\$6,994,871.72
Other income (net), including dividends received on stock of certain other companies owned by United States Rubber Co.	1,024,950.31
Total income	\$8,019,822.03
Less:	
Interest on borrowed money	\$394,977.41
Interest allowed customers for pre-payments	447,266.83
Net income	\$7,177,577.79
Deductions for bad debts, etc.	53,497.97
Profits	\$7,124,079.82
Coupons and interest paid on Ten-Year 6% gold bonds	988,916.67
Reserve for doubtful accounts	\$100,000.00
Reserve for contingencies	500,000.00
Net profits	\$5,535,163.15
Dividends	3,574,205.00
Surplus for period	\$1,960,958.15
Surplus April 1, 1909	5,838,639.15
Surplus March 31, 1910	\$7,799,597.30

JOHN J. WATSON, Jr., Treasurer.

* * *

THE certificate of audit of the company's accounts is signed by Haskins & Sells, certified accountants.

On January 5, 1910, Mr. Elisha S. Williams was elected to the office and assumed the duties of president of the Rubber Goods Manufacturing Co.

ISSUE OF CAPITAL STOCK AND BONDS.

To finance the acquisition of this stock of the Revere Rubber Co. and outstanding shares of the Canadian Consolidated Rubber Co., Limited, as well as to provide additional working capital needed for the growing business of the United States Rubber Co., the most available resources were the unissued 35,614 shares of First Preferred stock and \$5,000,000 6 per cent. bonds of this company. The syndicate which was formed, comprising your president and some of the directors, undertook to purchase at \$110 a share all of the preferred stock which should be offered to stockholders and not taken by them at that price, to purchase outright at par \$2,500,000 bonds, and, at the option of the company at any time before December 20, 1910, to purchase at par the other \$2,500,000 bonds, in the meantime lending thereon the full amount thereof at 6 per cent. interest, the terms being more fully stated in the circulars of December 23, 1909, and December 29, 1909, which were issued to every stockholder.

In addition the syndicate was to receive the net profits of the Revere Rubber Co. until December 31, 1911, but any excess above \$700,000 was to be divided between the syndicate and the United States Rubber Co. In this way the company was to receive about \$9,000,000 cash, in consideration of the issue of its stock and bonds at a price in the aggregate exceeding any ever received by it therefor, and also the profits, after December 31, 1911, of the Revere Rubber Co., which, if yielding the stated profit to the syndicate, would demonstrate the very great value of its acquisition by the United States Rubber Co.

Upon the offer of December, 1909, the stockholders took 27,997 shares of First Preferred stock and the syndicate took the remaining 7,617 shares at 110. It also took \$2,500,000 bonds at par and loaned the company \$2,500,000 on the remaining bonds, which it must take at par at the option of the company. Thus there was provided about \$9,000,000, of which \$4,000,000 were used for the purchase of stock of the Revere Rubber Co., \$1,000,000 were used for purchase of stock of the Canadian Consolidated Rubber Co., and about \$4,000,000 cash was added to the working capital of the company. Information as to these matters and opportunity to examine the contract with the syndicate were offered to stockholders in the circular of December 23, 1909, and are now open to stockholders upon application at the office of the company, No. 42 Broadway, New York. The entire transaction will be submitted to the stockholders for approval at the annual meeting.

ADDITIONAL DIRECTORS.

In connection with the acquiring of a larger interest in the Canadian Consolidated Rubber Co., Limited, the president of that company, Mr. D. Lorne McGibbon, was on March 3, 1910, elected a director of the United States Rubber Co., which election brought a most valuable addition to the board.

On March 3, 1910, the directors also voted (there being no other vacancy upon the board) to recommend to the stockholders at the approaching annual meeting the election of Mr. Elisha S. Williams, president of the Rubber Goods Manufacturing Co., as a director of the United States Rubber Co.

COMMON STOCK DIVIDENDS.

The earnings of the company the past year, considered by themselves, would seem to warrant some division to the common stockholders, and, were it not for the abnormally high price of crude rubber existing, and the consequent requirement of a much larger sum of money to purchase and carry the same, your president would feel warranted in recommending a dividend upon the common stock at the present time.

CONCLUSIONS.

All things considered, while there is yet much to do to bring our company to that degree of efficiency in all its departments for which we are striving, your president feels that important progress towards that end has been made during the past year, and that, with the securing of our crude rubber at reasonable prices, the outlook for the growth and prosperity of the company is very gratifying.

New uses for rubber as an article of manufacture are arising nearly every day. As an illustration, ten years ago rubber tires, that now alone consume one-half of the raw product, were not an important factor in the trade. For this reason, every step of the business, from the gathering of the crude rubber from the Amazon and its tributaries, from Mexico and Africa and from the plantations of the Far East, to the manufacture and sale of the great variety of the finished product, possesses new and ever increasing interest.

Your president returned at the end of last summer's vacation, with renewed health and vigor. He takes pleasure in acknowledging the loyal and efficient services of the officers and employees of the company and its subsidiary companies. Respectfully submitted,

SAMUEL P. COLT, President.

New Brunswick, New Jersey, May 17, 1910.

THE ANNUAL ELECTION.

THREE new names appear in the list of directors chosen this year. John J. Watson, Jr., for several years a member of the board and of the executive committee and treasurer of the corporation, tendered his resignation to the directors just prior to the annual meeting. Two other resignations from the board were Messrs. William H. Moore and Francis Lynde Stetson, of New York. The number of directors this year is the same as last—twenty—and the three new names are (1) Elisha S. Williams, who was general manager of the Revere Rubber Co., recently acquired, and is now president of the Rubber Goods Manufacturing Co., and is named as succeeding Mr. Watson; (2) James Deshler, some time secretary of the New Jersey Rubber Shoe Co., later president of the New Brunswick Rubber Co., and now general manager of the Jersey factory of the United States Rubber Co., and mentioned as the successor to Judge Moore, who retires in view of a projected long visit to Europe; and (3) D. Lorne McGibbon, president of the Canadian Consolidated Rubber Co., Limited, already a member of the board, filling a vacancy caused by the retirement of Francis Lynde Stetson as a director, but remaining general counsel of the United States Rubber Co. The board is now composed as follows, the figures indicating the number of successive annual elections of the respective directors:

Walter S. Ballou, Providence, Rhode Island. [8.]
 Elias C. Benedict, No. 80 Broadway, New York. [9.]
 Anthony N. Brady, No. 54 Wall street, New York. [7.]
 Samuel P. Colt, Bristol, Rhode Island. [19.]
 Harry E. Converse, Boston, Massachusetts. [13.]
 James Deshler, New Brunswick, New Jersey. [1.]
 James B. Ford, No. 42 Broadway, New York. [19.]
 J. Howard Ford, No. 42 Broadway, New York. [19.]
 Frank S. Hastings, No. 80 Broadway, New York. [6.]
 Francis L. Hine, No. 2 Wall street, New York. [8.]
 Henry L. Hotchkiss, New Haven, Connecticut. [19.]
 Arthur L. Kelley, Providence, Rhode Island. [5.]
 Lester Leland, Boston, Massachusetts. [12.]
 D. Lorne McGibbon, Montreal, Canada. [1.]
 Edward R. Rice, No. 42 Broadway, New York. [2.]
 Homer E. Sawyer, No. 42 Broadway, New York. [5.]
 Frederick M. Shepard, No. 787 Broadway, New York. [19.]
 William H. Truesdale, No. 26 Exchange place, New York. [6.]
 John D. Vermeule, No. 503 Broadway, New York. [14.]
 Elisha S. Williams, No. 42 Broadway, New York. [1.]

It may be noted that Mr. Deshler has served already upon the board, under elections on October 15, 1892, and April 18, 1893.

The newly elected board met in New York and after organizing elected the following officers and executive committee:

President—SAMUEL P. COLT.
Vice President—JAMES B. FORD.
Second Vice President—LESTER LELAND.
Treasurer—JAMES B. FORD (succeeding John J. Watson, Jr.).
Assistant Treasurer—W. G. PARSONS.
Secretary—SAMUEL NORRIS.
Assistant Secretary—JOHN D. CARBERRY.
Executive Committee—Samuel P. Colt, James B. Ford, Lester Leland, E. C. Benedict, Walter S. Ballou, Anthony N. Brady, Elisha S. Williams (succeeding John J. Watson Jr.).

AMENDMENT OF BY-LAWS.

AMONG the various amendments to the by-laws of the company voted upon by the stockholders was the following, which was adopted:

Resolved, that Article II of the by-laws be amended by adding thereto the following section 7:

SECTION 7.—*Contracts.* Inasmuch as the directors of this company are men of large and diversified business interests, and are likely to be connected with other corporations with which from time to time this company may have business dealings, no contract or other transaction between this company and any corporation, the majority of whose stock is directly or indirectly owned or controlled by this company, shall be affected by the fact that the directors of this company voting in favor of such contract or transaction, are also interested in or are directors or officers of such other corporation; nor shall any such contract or other transaction with any other corporation be so affected in any case by reason of the fact that directors of this company are interested in or are directors in or officers of such other corporation, if, at the meeting of the board or committee of this company making, authorizing, or confirming such contract or transaction, there shall be present a quorum not so interested, provided a majority of such quorum shall vote in favor of such contract or transaction; and any director of this company may individually for his own account be a party to or be or become interested in any contract or transaction of this company, provided that such contract or transaction shall be authorized, approved or ratified by the affirmative vote of at least ten directors not so interested.

At any meeting of the board, or of a committee of this company at which a contract or transaction is made, authorized, or ratified, any director who is interested therein, either individually or as a director of another corporation which is interested therein, shall disclose the nature of his interest therein and withdraw from the meeting while such contract or transaction is under discussion, and the remaining directors shall cause to be entered on the minutes of the meeting the statement that they are informed as to such interest of such other directors, and that at that time they themselves neither have nor intend to have any such interest therein.

The board of directors in its discretion may submit any contract or act for approval or ratification at any annual meeting of the stockholders, or at any meeting of the stockholders called for the purpose of considering any such act or contract; and any contract or act that shall be approved or be ratified by the vote of the holders of a majority of the capital stock of the company which is represented in person or by proxy at such meeting (provided that a lawful quorum of stockholders be there represented in person or by proxy) shall be as valid and as binding upon the corporation and upon each and all of the stockholders as though it had been authorized, approved or ratified by every stockholder of the corporation.

BUSINESS OF THE COMPANY.

THE following table, showing the amount of net profits of the United States Rubber Co. and the amounts disbursed in dividends since the organization of the company, has been compiled from the printed reports of the successive treasurers of the corporation:

YEAR ENDING—	Net Profits.	Dividends.
March 31, 1893.....	{ [Not Published.] }	
March 31, 1894.....	{ }	
March 31, 1895.....	\$2,716,370.00	\$2,056,190.00
March 31, 1896.....	2,339,790.60	1,552,040.00
March 31, 1897.....	1,999,611.34	1,552,040.00
March 31, 1898.....	2,070,750.41	1,552,040.00
March 31, 1899.....	3,226,513.46	1,882,040.00

YEAR ENDING—	Net Profits.	Dividends.
March 31, 1900.....	\$3,007,887.54	\$2,828,680.00
March 31, 1901.....	62,603.57	705,765.00
March 31, 1902.....	deficit	none
March 31, 1903.....	1,594,908.16	none
March 31, 1904.....	1,575,641.29	none
March 31, 1905.....	3,761,922.63	1,882,040.00
March 31, 1906.....	3,881,270.23	2,846,092.00
March 31, 1907.....	4,590,382.72	3,485,956.00
March 31, 1908.....	3,553,556.14	3,495,448.00
March 31, 1909.....	4,507,655.39	3,498,940.00
March 31, 1910.....	5,535,163.15	3,574,205.00

CANADIAN CONSOLIDATED RUBBER CO., LIMITED.

THE figures which follow represent the financial condition of this company at the end of the calendar year 1909:

ASSETS.	
Cash	\$1,811.47
Accounts receivable	71,148.68
Furniture and fixtures.....	4,240.29
Investments in the capital stock of subsidiary companies	7,296,950.00
[Being 97 per cent. of the capital of The Canadian Rubber Co. of Montreal, Limited, and 100 per cent. of the capital stock of the Granby Rubber Co., Limited; the Maple Leaf Rubber Co., Limited; and the Berlin Rubber Co., Limited.]	
Total	\$7,374,150.44
LIABILITIES.	
Six per cent. bonds:	
Authorized	\$2,600,000.00
Less unissued	58,700.00
Preferred capital stock:	
Issued	1,980,000.00
Less in trust (Royal Trust Co.)...	20,545.00
Common capital stock:	
Issued	2,805,500.00
Less in trust (Royal Trust Co.)...	8,805.00
At credit of profit and loss.....	76,700.44
Total	\$7,374,150.44
PROFIT AND LOSS ACCOUNT.	
By balance brought forward	\$33,386.29
By dividends from subsidiary companies. \$313,787.58	
By revenue from other sources.....	193,958.70
Total	\$541,132.57
To bond interest	\$515,296.00
To preferred dividends (7%).....	136,732.75
To common dividends (4%).....	111,741.00
To general expense	64,662.38
Surplus	\$76,700.44

The gross earnings compare with \$356,684 in 1908. The dividends are the same, with the exception of an increase of \$601 in the preference dividend.

* * *

THE list of officers of the Canadian Rubber Co. of Montreal, Limited, has undergone some changes of late. Mr. McGibbon remains president and the list as a whole now stands as follows:

President—D. LORNE MCGIBBON.
General Manager—F. H. WARD.
Manager Footwear Department—W. BINKMORE.
Manager Mechanical Goods—F. E. PARTRIDGE.
Secretary and Treasurer—LEONARD D. SHAW.

ELASTIC or plastic products designed as substitutes for india-rubber or gutta-percha are the subject of the British patent (No. 27,688—1908) issued to Wallace and Reynaud. Gum resins extracted from the Xanthorrhoeas or other like trees are added to a bath of vegetable oil heated to a temperature above 200° C. A mixture of equal parts of linseed oil and gum resin is specified.

WOMEN TAPPING RUBBER.—Malay women have now taken to tapping rubber and on an estate, not far from Taiping, some of them can be seen regularly at work. They are said to be quite clever at the job and remarkably clean and swift.—*Pinang Gazette.*

Rubber Goods Manufacturing Co.'s Annual.

THE eleventh annual meeting of the shareholders of the Rubber Goods Manufacturing Co., a corporation of New Jersey, was held at the registered offices of the company in Jersey City, on Thursday, May 19. The annual reports of the officers of the company were read and approved, and are given here in full form.

PRESIDENT WILLIAMS'S REPORT.

TO THE STOCKHOLDERS OF THE RUBBER GOODS MANUFACTURING CO.: Your president did not come into office until January 1, 1910, or at the close of the fiscal year of the company.

The annual report of the treasurer of your company shows a large increase in sales over all preceding years. This increase has applied to all lines of goods manufactured by your company, although much more largely to automobile tires, extraordinary attention having been given to this branch of the business, with the view of bringing about a materially increased demand for our tires. This has been accomplished, but in so doing largely increased expenses, together with increased equipment, have been called for, which has prevented our showing a proportionate increase in net earnings, but from which we shall derive much benefit in the future.

The maintenance of all plants and equipment has received and is receiving the same careful attention as in previous years, and all are in excellent condition.

The increase in bills and accounts payable is the result of high prices for crude rubber and other materials and larger volume of business. It will be noted that inventories show a corresponding increase. Respectfully submitted,

ELISHA S. WILLIAMS, President.

Jersey City, New Jersey, April 14, 1910.

TREASURER'S REPORT.

CONSOLIDATED GENERAL BALANCE SHEET, DECEMBER 31, 1909.

ASSETS.

Property, plants and investments.....	\$24,786,194.24
Patents and trade marks.....	2,311,621.32
Inventories, manufactured goods and materials.....	\$12,917,183.90
Cash.....	1,121,737.63
Bills and accounts receivable.....	3,611,417.22
Securities owned.....	7,822.42
Stock owned in General Rubber Co.....	1,000,000
Miscellaneous assets.....	1,007,822.42
	202,743.51
Total assets.....	\$45,958,720.24

LIABILITIES.

Capital stock, preferred.....	\$10,351,400.00
Capital stock, common.....	16,941,700.00
Bonds of Mechanical Rubber Co. and New York Belting and Packing Co. (less amount owned)	\$983,510.00
Sinking fund cash in hands of trustee.....	130,108.27
Reserve for redemption of bonds.....	853,401.73
Bills and accounts payable.....	588,548.53
Reserve for new construction.....	8,675,780.31
Reserve for federal excise tax.....	523,643.05
Fixed surplus (subsidiary companies).....	23,160.74
Surplus.....	2,499,218.65
	5,501,867.23
Total liabilities.....	\$45,958,720.24

Of the above "surplus" minority stockholders would be entitled to \$127,379.55.

Contingent liabilities for certain guarantees which are offset by corresponding contingent assets, are not included.

CONSOLIDATED SUMMARY OF INCOME AND PROFIT AND LOSS FOR YEAR ENDED DECEMBER 31, 1909.

Net sales.....	\$25,629,592.71
Earnings of subsidiary companies.....	\$2,332,920.65
Realized from securities heretofore charged off.....	\$160,000.00
Less:	
Expenses of home office.....	122,949.04
Net profits.....	37,050.96
Dividends.....	\$2,369,971.61
Added to reserve for redemption of bonds.....	\$963,489.00
Surplus for the period.....	73,510.06
Surplus and working capital January 1, 1909..	1,036,999.06
	\$1,332,972.55
	4,168,894.68
Surplus and working capital December 31, 1909	\$5,501,867.23

Respectfully submitted,

THOMAS H. LEE, Treasurer.

The annual election resulted in the election of the following directors of whom two are new, Messrs. Williams and Ford. The name of Mr. Watson, previously on the board, does not appear this year. At a meeting of the board held on May 20, at No. 42 Broadway, the election of officers resulted:

President.—ELISHA S. WILLIAMS.

Vice Presidents.—LESTER LELAND and CHARLES A. HUNTER.

Treasurer.—E. J. HATHORNE.

Assistant Treasurer.—JOHN D. CARBERRY.

Secretary.—SAMUEL NORRIS.

Assistant Secretary.—JOHN D. CARBERRY.

Executive Committee.—Elisha S. Williams, Lester Leland, Anthony N. Brady, Samuel P. Colt, Ernest Hopkinson, Charles A. Hunter, and Homer E. Sawyer.

The certificate of audit of the company's accounts is signed by Haskins & Sells, certified accountants.

The following record of the volume of net sales by the Rubber Goods Manufacturing Co. and the subsidiary companies is compiled from the successive annual reports as published:

1900.....	\$13,364,090.00	1905.....	\$17,662,453.00
1901.....	14,348,046.00	1906.....	19,737,120.81
1902.....	13,999,329.00	1907.....	21,473,823.28
1903.....	14,310,752.00	1908.....	18,491,987.90
1904.....	14,556,289.00	1909.....	25,629,592.71

GUTTA-PERCHA IN SURGERY.

WRITING in the *Journal of the American Medical Association*, Dr. Frank speaks of the lack of familiarity with gutta-percha and its surgical uses and the confusion that exists between it and rubber tissue. While there are points of similarity between them, they are very different and are not available for the same purposes. He reviews the history of the substance and its surgical use, and says his own attention was called to it by its unirritating properties. Surgeons, on its first introduction, made rather extensive use of it, but since its supersession by plaster of paris as a splint material very little has appeared in regard to it in medical literature. He speaks especially of its value as an occlusive dressing, for which it has advantages over oiled silk in that it is free from odor, is more pliable, and is not disintegrated by body temperature and moisture. It is also valuable for drainage, and he gives a large number of applications in which it may be useful. He also reports his experiments with the sterilization of this substance and finds that it can be sterilized effectually by a 1 to 1,000 or 1 to 2,000 bichloride of mercury solution, which does not seem to affect its physical properties.

PRICES NOT ELASTIC.—Just now the price of rubber stretches readily, but won't contract.—*New Albany (Indiana) Tribune*.

English Novelties in Rubber Garments.*

THE very practical idea of closing all wholesale houses from Good Friday to the Tuesday after Easter has been customary in England for a number of years. In consequence, millions of people enjoy four holidays, but besides that, Maundy-Thursday is given to a part of the employes, and still others are even excused on the Tuesday after the

*From a report written in London in April by Curt Otto, for the *Gummi-Zeitung* (Berlin).

festival, while very many principals extend their holidays to the second Monday after Easter. Under these circumstances one can easily imagine what an exodus there is from here to the seaside places. The different railway lines from London, according to the published reports, carried 300,000 pleasure seekers as early as Maundy-Thursday, and over a half million on Good Friday.

The daily papers send special reporters to observe the



ENGLISH NOVELTIES IN RUBBER GARMENTS.

extraordinary traffic and concourse of people, and in doing so, several of that wideawake fraternity were struck by the fact that nearly every one of these Easter tourists, whether man or woman, and traveling first or third class, was provided with a rubber mantle, rubber coat, or pelerine. It appears, therefore, that we are rapidly approaching the time when every Englishman will possess his mackintosh. This is all the more remarkable, because naturally the article must be much more expensive now, if the same good quality is insisted upon, than in former times. The manufacturers, however, manage to overcome the difficulty by decreasing the thickness, or increasing the thinness of the stuff, to a hardly diminishable lightness, but in all probability were obliged to do so by the immense business demand. As a matter of fact, the rubber coats of to-day are of such light weight that ladies especially are using them as dust coats.

On the other hand, the cut of rubber garments has been so highly elegant that neither the most aristocratic lady nor the most fastidious gentleman need feel any hesitation about showing herself or himself in them anywhere. The English royal couple, and in their train the princes, princesses, and the whole court, are giving a good example in following this fashion. The different manufacturers produce their own styles, so that variety certainly is not wanting, and though they may differ in style, they are all *chic*. The advance in motor sport has contributed very considerably to render the rubber coats popular with ladies and gentlemen, also the immense growth of the yachting sport.

It is hardly possible to imagine anything better and more practical at sea than an entire rubber suit for gentlemen, or a pelerine for ladies. More than formerly, the rubber dress is being worn in all sorts of outdoor sports, and for fishermen and hunters it is simply ideal. The latter nowadays pursue their pleasure in rubber jackets and trousers of irreplicable cut. More and more the fashion also seems to gain headway of providing the coachman and the lackey with rubber coats, the latter individual even with close fitting rubber coats and trousers.

In our illustrations we show something entirely new and uncommonly practical, the "motor rug." This article was invented by a very experienced motor driver of the London "upper ten," and does not possess the inconveniences of the common motor apron. By a very simple fastening at the neck this front spread is always kept in its proper position and can not slip down, even when the wearer walks, and the "bib" or chest protector, gives complete protection from rain, snow and strong cold winds. This article also recommends itself by its price, which in the giant bazaars of the West End is as low as from 23s. 6d. [= \$5.72] up. The front spread has been patented in the United Kingdom, and, although only recently invented, sells exceedingly well at home and abroad.

Another novelty, coming from Paris, if I am not mistaken, is the "Capuchon," an attachment which can be buttoned under the collar of gentlemen's or ladies' overcoats and drawn up to cover the head.

Our illustration No. 2 shows an elegant double breasted gentleman's overcoat. Illustrations No. 3, 4, and 5 are the latest rubber overdresses for ladies, made by a Paris house, established in London and representing French (more or less Anglicized) models. A few years ago hardly anybody would have even imagined that these drawings represented rubber dresses, while to-day the highly elegant cut is none too good for them.

In illustrations Nos. 6, 7 and 8 we introduce some of a large number of the newest models of purely English origin, which, have pleased most through their *chic* quality, combined with simplicity of taste. With the gigantic business which is done in rubber garments for gentlemen, ladies, and

children in the British isles there are always so-called waterproof fabrics appearing which have been made by different chemical processes to resist the rain more or less, and which for short walks or light showers are useful enough, but do not give any protection against a heavy and protracted rain.

The manufacturers try to offset the evident disadvantage by working the stuff up into very pleasing patterns of harmonious colors. After several judicial decisions had been obtained against the manufacturers who advertised waterproof materials without finishing them, the advertisements are now made to read "Waterproof in light rain."

CHEWING GUM TRADE IN ENGLAND.

THE Tutti-Frutti Sen-Sen Co., Limited, was registered in London, on May 4, 1910, with £20,000 capital, to engage in the business of manufacturers of and dealers in American chewing gum and cachouc, bakers, confectioners, etc.; and to acquire and amalgamate the business of the American Chic Co., carried on at 56, Newcomen street, London, and the business of the Sen-Sen Chiclets Co., at 9, Farringdon avenue, E. C. The new company, though organized under the incorporation act, is of the class known in England as private companies. The registered office is 56, Newcomen street.

It has been considered hitherto that the manufacture of chewing gum, of which the Mexican chicle gum is the basis, was a distinctly American institution, though of late the American Chic Co. have maintained an important factory in Toronto, Canada. The exports of chewing gum from the United States have been on a very small scale, though the production has been enormous. Such exports as have been made have been particularly to Australia and South Africa. Some time ago the American Chic Co. established a branch in England and it would appear from the organization of the new company mentioned above that chewing gum as an article of commerce may become more important than in the past outside of the United States.

The American Chic Co., mentioned in this paragraph, was established in 1899 with a capitalization of \$9,000,000, and has been a large dividend payer from the beginning. The dividends for several years past have amounted to \$960,000 a year. This company was based upon a consolidation of half a dozen or more factories. Its success led to the development of several independent companies, which were combined about a year ago under the style Sen-Sen Chiclets Co., with a capital of \$6,700,000.

It is interesting to note that Mr. Charles R. Flint, who was so long prominent in the American rubber trade, and who was the chief promoter of the American Chic Co., was active in the organization of the newer American company named. The details given here regarding the new British company would indicate at least a community of interest between the two American corporations.

AMONG the exhibits in the British section at the Brussels International Exhibition a prominent space is occupied by The North British Rubber Co., Limited (Edinburgh). In addition to being manufacturers of the "North British" clincher motor and cycle tires, "North British" aeroplane fabrics, and so on, the company named are among the largest makers of rubber footwear and mechanical and surgical rubber goods. Their exhibit is very complete and representative of the rubber industry in the British empire. The company are distributing at the exhibition an attractive booklet entitled "Golden Opinions," containing testimonials from users of their tires, including a mention of a tire having been run 6,000 miles on a rear wheel of a 25 HP. landaulette weighing nearly two tons.

Some Rubber Interests in Europe.

GOOD PROFITS OF MANDLEBERG.

AT the annual meeting of shareholders of J. Mandleberg & Co., Limited (Manchester, March 31) the reports showed the largest profits for any year in the company's history—£49,519 3s. 9d. [=£240,984.21]. While the subject is not touched upon in the report, it may be mentioned that whereas the business of the Mandleberg company was confined to waterproof goods, they now control factories in other branches of the industry, notably The United Rubber Co., Limited, at Woodley, near Manchester. The company as constituted in 1889 had a capital of £20,000 in 7 per cent. cumulative preference shares, £120,000 in ordinary shares, and £70,000 in 4½ debentures. Two points of interest in the latest report are: (1) The debentures have been reduced to £7,000, and the whole issue is to be retired next year; (2) the ordinary capital has been increased to £180,000 by the issue of 60,000 new shares, as a bonus to the original holders, representing individual profits of the company. The following table shows the distribution of dividends on the ordinary shares for the past fifteen business years:

1895	5 %	1900	15 %	1905	10 %
1896		1901	17½%	1906	12½%
1897	6 %	1902	17½%	1907	12½%
1898	10 %	1903	20 %	1908	12½%
1899	12½%	1904	12½%	1909	12½%

DUNLOP RUBBER CO.—INCREASE OF CAPITAL.

A MEETING of the Dunlop Rubber Co., Limited, was called for April 12, for the purpose of considering a resolution for increasing the capital of the company. It was proposed to transfer £480,000 from the reserves, as a permanent addition to the capital, which has stood at £240,000. The plan was to issue to shareholders new fully paid up shares for an amount equal to double their former holding, thus increasing the paid up capital to £720,000. The proposal was approved.

The directors of the Dunlop Rubber Co., Limited, declared an interim dividend, at the rate of 100 per cent. per year, for the half year ended February 28, 1910.

LATEST NEWS REGARDING "VELVRIL."

F. REDDAWAY & Co., LIMITED (Manchester) have purchased from the liquidator the factories and business of The Velvrl-Boumand Co., Limited, in London. The basis of this latter business was the manufacture of "Velvrl," patented by Walter F. Reid. [See THE INDIA RUBBER WORLD, June 1, 1908—page 294.] The Messrs. Reddaway, according to *The India-Rubber Journal*, mean to carry on the manufacture of the Velvrl product, which is a substitute for leather, on an important scale.

COLONIAL RUBBER CO. IN GERMANY.

KOLN-EHRENFELDER Gummiwerke Aktiengesellschaft, at Cologne-Ehrenfeld, has gone into liquidation. This business originally was the German branch of Coloniale Caoutchouc Société Anonyme, of Brussels, and was devoted principally to working in Germany the Cox ball patent. The company style above mentioned was adopted in the latter part of 1907. After various changes in their business, the works were devoted to the manufacture of mechanical rubber goods, but at the end of last year the decision was reached to go into liquidation.

WASHING CRUDE RUBBER.

THE Crude Rubber Washing Co., Limited, registered in London, March 31, 1910, with a stated capital of £250,000 [=£1,216,625], has been formed for the purpose of acquiring

as a going concern the rubber washing business of the British Murac Syndicate, Limited (London), together with the rights for using the patent of Morland M. Dessau for purifying and cleaning rubber, and also for the purpose of working in conjunction therewith machinery invented and patented in France and other countries by Leon Guignet, of Lyons, so far as the same relates to the cleaning of rubber. A small inaugural plant has been in operation at the works of the British Murac Syndicate, Limited, since October, 1908, with results referred to as being very satisfactory. In view of the important proportion of the world's rubber production now coming to market containing impurities—often to a very large per cent.—the proposition is to supply central washing stations, so to speak, at which individual manufacturers will be able to buy in a clean condition any grade of rubber which they may desire. The machine invented by Leon Guignet [see THE INDIA RUBBER WORLD, March 1, 1910—page 202] is in use already in the French Congo and arrangements have been made for its use by the recently incorporated Madagascar Rubber Co., Limited. The board of the Crude Rubber Washing Co., Limited, embraces Mr. Maldwin Drummond, chairman of the British Murac Syndicate, Limited, and Mr. R. Phipps Hornby, a director in the Madagascar Rubber Co., Limited. The manager of the new company is Mr. Morland M. Dessau, joint manager of the British Murac Syndicate, Limited.

BRITISH NOTES.

EXTENSIVE damage was done, by fire, on April 6, to the large works of P. Frankenstein & Sons, Limited—Victoria Mills, Newton Heath—Manchester, England. The buildings remain standing, but valuable machines and goods were destroyed.

W. T. Henley's Telegraph Works Co., Limited, report a net profit for 1909 in excess of 1908, although in some respects the year had not been a good one for the trade. The best feature of the year had been the extension of the company's foreign and colonial trade. Dividends were as usual—15 per cent. on £200,000 of ordinary shares and 4½ per cent. on £350,000 of preference shares. Counting as capital the £200,000 of reserves—on which no dividend is paid—the return works out at an average of 6 per cent. on the total capital.

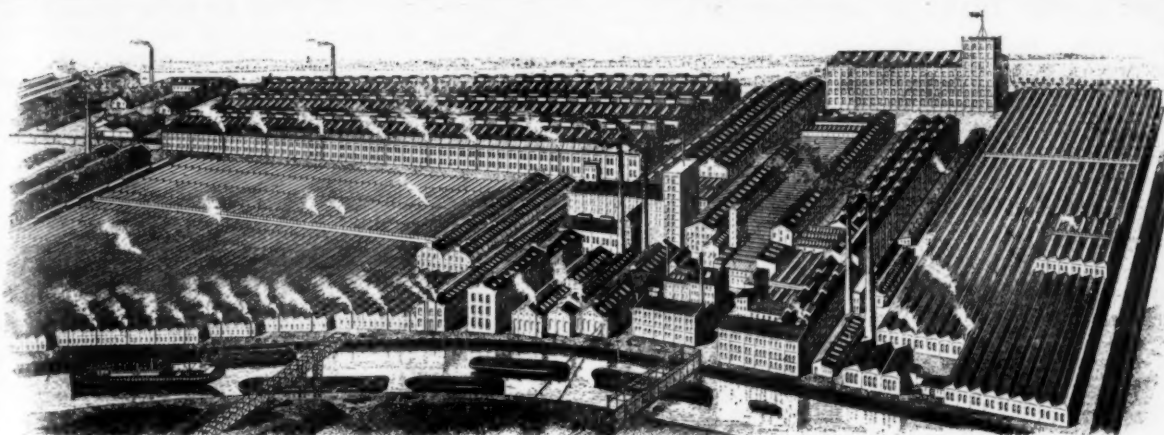
Liverpool Rubber Co., Limited.—Dividends of 5 per cent. on the preference shares and 2 per cent. on the ordinary shares for the business year 1909 have been declared. The ordinary dividend is the same as for the preceding year. For four years before that there was nothing for either class of shares. The capital is £130,000 [=£632,635.]

W. T. Glover & Co., Limited (Manchester).—At the last annual meeting the payment was authorized of the usual dividend on the 5 per cent. cumulative preference shares and 5 per cent. on the ordinary shares.

The Victoria Rubber Co., Limited (Edinburgh).—The dividend for the business year ended December 31, 1909, is 10 per cent., with a bonus of 2½ per cent.

A ROYAL VISITOR IN A RUBBER WORKS.

PRINCE HENRY of Prussia visited Hanover a few days ago. Shortly after his arrival he proceeded to the home of Director Willy Tischbein, of the Continental-Caoutchouc- und Guttapercha-Compagnie, where he breakfasted. The Prince thereupon paid a visit to the Continental works, where he inspected very thoroughly the various manufacturing departments, under the guidance of Kommerzierrat Seligmann and other members of the board of managers. He appeared to



THE FRENCH-RUSSIAN INDIA-RUBBER FACTORY "PROWODNIK," AT RIGA, RUSSIA.

be intensely interested in all the manufacturing lines, and remained about four hours in the different parts of the works. Having completed his tour of inspection, Prince Henry, in company with the gentlemen of the Continental company, proceeded once more to the residence of Herr Tischbein, where he dined. Later the Prince returned to his hotel.

RUBBER PROFITS IN AUSTRIA-HUNGARY.

THE two principal rubber works of Austria-Hungary will pay the same dividends for the last business year as previously. The Oesterreichisch-Amerikanische Gummifabrik Aktiengesellschaft has declared 28 *kronen* and Ungarische Gummiwaren-Fabriks Aktiengesellschaft 25 *kronen* per share. Both companies are capitalized in shares of 400 *kronen* [= \$81.20], and the rate of dividend paid this year is respectively 7 per cent. and 6½ per cent. for the two companies.

GERMAN RUBBER PROFITS.

THE dividend of Frankfurter Asbestwerke Aktiengesellschaft (formerly Louis Wertheim), at Frankfurt o/M., for their twelfth business year—1909—was 4 per cent., against 6 per cent. in 1908 and 7 per cent. in 1907.

At the last annual meeting of shareholders of the Mitteldeutsche Gummiwaren-Fabrik Louis Peter A.-G. (Frankfurt o/M.) it was decided to increase the capital by 2,000,000 marks, making the total 5,000,000 marks [= \$1,190,000]. The company are very large producers of rubber tires as well as general rubber goods, having an important export trade. Their dividend for the last business year was 25 per cent., and for the preceding year 22 per cent.

The gross profit of Deutsche Kabelwerke, A.-G., at Rummelsburg, near Berlin, for 1909 was 1,244,005 marks, from which there remained after all deductions a net profit of 474,244 marks [= \$112,870], against 402,158 marks for the previous year. The dividend is 7 per cent., against 6 per cent. last year.

The dividend of Aktieselskabet den Norske Remfabrik, of Christiania, Norway, for 1909 is 6 per cent.

LESS COTTON FROM THE WEST INDIES.

WHILE cotton continues to be grown in many countries besides the United States, the results to date do not encourage any hope of an early increase in the world's production such as to bring prices to a lower level. The United States consul in Barbados reports that the total shipment of cotton from the British West Indies for the calendar year 1909 amounted to 2,242,289 pounds. "This was a decrease of about 500,000 pounds from the preceding year. From the

best information obtainable, the crop for 1910 will show a still further decrease. The cotton was nearly all sea island. The cultivation of sea-island cotton first became a factor in [Barbados in] 1902. There was a steady increase in acreage up to 1907, when it reached its maximum. Since that year there has been a decrease in acreage in nearly all the islands."

RETURN OF THE BICYCLE.

THE bicycle in the United States appears to have regained much of the popularity which it lost a few years ago in the period when the great bicycle manufacturing combination went to smash. Writing on this subject, *The Bicycling World* (New York) intimates that the demand for bicycles never did decline to the extent supposed by many persons. This paper says that there have been few years since the establishment of the industry when less than a quarter million bicycles have been produced in the United States alone; that there are still factories in this country which produce annually 40,000 or more bicycles each; and that during the present season some of these factories have not been able to cope with the enlarged demand that has arisen.

As for the bicycle interest abroad, it appears never to have fallen off in any year. The exports of bicycles alone—motorcycles not included—from four leading countries last year are stated to have been of the value of \$25,000,000. *The Bicycling World* estimates the total value of the production of bicycles at \$100,000,000 a year, and the production of motorcycles at \$50,000,000. With the production of these vehicles at such a rate it is evident that the demand for tires, which is helping to keep up the price of raw rubber, is not due to automobiles alone.

Speaking of motorcycles, the rapidly growing rural free delivery branch of the United States postal service seems to open a new field for the use of these vehicles. There are already about 40,000 rural letter carriers, and the number has been increasing rapidly of late. The motorcycle is stated to have been used with wholly satisfactory results by a number of carriers. The machines are not expensive, the cost of upkeep is slight, they are convenient to use, and make good time.

ACCORDING to the Detroit (Michigan) *Free Press*, the Mexican Crude Rubber Co. in 1909 made 2,500,000 pounds of guayule rubber, which realized for the company an average of 35 cents a pound, or a total profit of \$341,000. For 1910 the production is estimated at 3,000,000 pounds of rubber, already sold at an average of 54 cents a pound, amounting to a profit for the year of almost \$800,000.

THE RUBBER TRADE AT SAN FRANCISCO.

WITH the approach of summer comes an improved trade for the local dealers in mechanical rubber goods, and even druggists' sundries. The abundant crops, which are now beyond all danger of frosts, are of themselves a safe assurance of good business. The activities in the oil fields of California afford another income which goes to make prosperity for the state. The oil wells have developed to such an extent that this state is supplying more than one-third of all the oil produced in the United States, and this is an item of no small amount when added to one of the live assets of a community. Besides, there has been a tendency to revive activity in the gold mines of California which looks favorable to the dealers in mechanical goods.

ANOTHER thing which has had a decided tendency to infuse new life into the commercial depression from which San Francisco has lately been emerging, is the assurance that this city will have the United States government's assistance in making the celebration of the completion of the Panama canal in 1915, a World's Fair of great importance. All of the local merchants' organizations got together and raised a sum within a short time of over \$4,000,000, and another million has been practically raised within the past few weeks. Business men figure that there will be between \$40,000,000 and \$50,000,000 spent for purposes of building and celebrating the fair. That means a big circulation of money which in turn means more business for everybody. For these reasons local merchants are hopeful of the future.

In the rubber trade it is and has been for a long time very quiet. The high price of crude rubber stands before them always as a bothersome problem, and they have raised prices themselves, but have as yet to learn how the trade will take the new schedules. With so many favorable conditions to offset the disadvantages, however, the merchants are confident of a good business.

THERE has been a raise in the price of mechanical rubber goods all along the line by the manufacturers of the Pacific coast. This action became an urgent necessity owing to the high price of rubber. The movement on the part of the manufacturers seems to have been universal and the trade will find it necessary to meet the new prices. The prices now quoted are the same as published by the eastern organization known as the Mechanical Rubber Goods Manufacturers' Association.

THE Pacific Coast Rubber Manufacturers' Association held its monthly banquet and business meeting on the evening of May 11, at the St. Francis Hotel. The meeting was largely attended and proved one of the most successful that has yet been held. The matter of the advanced prices in manufactured goods occupied the principal attention of the speakers and the fact that prices had been raised met with the approval of all the manufacturers.

MR. JOSEPH V. SELBY, Pacific coast manager for the Boston Woven Hose and Rubber Co., will make his regular annual trip to the factory at the last of May, and will return during the latter part of June. Mr. Herbert Selby, the company's representative in the northwest, will take charge of the San Francisco office during the absence of Mr. Joseph Selby.

THE Gorham Rubber Co. are starting a branch store in Oakland, California, on Twelfth near Alice street. Harry Carlton, who formerly was taking care of the Oakland business, will have charge of the new branch. This will be one of the prettiest stores of its kind on the coast. George Hand, formerly with the Gorham Rubber Co., is now a salesman and working up some of the city trade.

THE president of the Gutta Percha and Rubber Manufacturing Co. (New York), Mr. Henry Spadone, has been in San Francisco and along the western coast on a visit. He returned east a short time ago. This concern reports a fair business for the past month.

MR. R. H. PEASE, president of the Goodyear Rubber Co., is optimistic regarding conditions in San Francisco. "We find business improving," he said, "over the business of a year ago, even with the high price of rubber. The list prices have been advanced by the local manufacturers, but we do not think that that will affect the sale of belting. The trade looks more to the discount given on belting than they do to the list price, and this is a good thing for the manufacturers. It remains to be seen what the advance on rubber boots will do. A man is apt to wear something else besides rubber boots if the price goes too high, and so it will naturally affect sales, whereas the advance on rubber shoes will not be noticed so much. We have received more advance orders for boots and shoes than we expected, and if we have early fall rains we will have a big business in that line next year."

THE Young Sanitary Manufacturing Co. have turned their complete plant, manufacturing and selling rights of the United States, Canada and England, over to the Orca Manufacturing Co. These concerns are both of San Francisco, and the latter corporation was recently organized for the purpose of financing and putting on the market the Young sanitary toilet seat. J. D. McKenzie is president, and U. R. Grant is secretary and manager of the Orca Manufacturing Co. Mr. Grant is well known in the rubber trade in San Francisco and along the coast. The success of the big undertaking seems well assured.

MR. R. E. JOHNSTON has bought out the Argus Co. on First street. The principal business of this concern is the repair of typewriter plantens.

MR. Crandley, of the Crandley Rubber and Supply Co., which has recently been organized, states that business has started much better than they expected, the second month being very satisfactory.

Austin Kanzee, of the Phoenix Rubber Co., has just left for a trip to the factories in the east.

THE Pacific Coast Rubber Co. have added two new traveling men: Nick Loesch, formerly with the Pacific Hardware and Steel Co., and Ben Ames, formerly with the Ames Supply Co.

The specifications of the San Francisco fire department have been changed so as to permit bids from everybody. Heretofore the bids were open only to local concerns.

THE RUBBER TRADE IN TRENTON.

BY A RESIDENT CORRESPONDENT.

AT a special meeting of the directorate of the United and Globe Rubber Manufacturing Cos., held on May 4, Mr. Charles Y. Flanders, former mayor of Burlington, New Jersey, was elected to the board to fill a vacancy that had existed for some years. This was in recognition of the valuable services which he has given to the company for ten years past, during which he has been a sales agent. The board is at present composed of Watson H. Linburg (president), John S. Broughton (secretary-treasurer), William H. Brokaw, Karl G. Roebeling, Wilbur F. Sadler, and Charles Y. Flanders.

General C. Edward Murray, of the Empire Rubber Manufacturing Co., as a member of the Trenton City Hall Building Commission, was instrumental, on May 23, in having the commission adopt a resolution which eliminates from the building any materials made by the Empire company. There is a New Jersey law prohibiting any city official from dealing directly or

indirectly in supplying any municipality with which he may be connected with materials or supplies, and while no question has arisen with regard to the company named, its management considered such a resolution as is referred to here to be proper.

The John E. Thropp's Sons Co. have about a dozen of their new tire wrapping machines on the market, five having been sold during the last month.

Mr. John S. Broughton, of the United and Globe Rubber Manufacturing Cos., has moved to his new home on West State street.

Mr. Welling S. Katzenbach, who for the past two years has acted as manufacturers' agent and broker in chemicals (particularly materials required by the rubber manufacturers) announces the formation, in conjunction with Mr. E. L. Bullock, of New York, of the Katzenbach & Bullock Co., to import and deal in chemicals and allied materials. The new company will maintain offices in the Broad Street Bank building, Trenton, and at No. 100 William street, New York.

The Stamford Rubber Supply Co. (Stamford, Connecticut) are advising their patrons that this is their decennial year, the inference being that their rubber substitutes have been "time proven."

THE RUBBER TRADE AT AKRON.

BY A RESIDENT CORRESPONDENT.

IN the chemical laboratory at Buchtel College some features are being developed likely to be of interest to the rubber trade. As already mentioned in THE INDIA RUBBER WORLD, courses in rubber chemistry have been arranged to be taken only by the seniors in the college, as two years' study of general chemistry is necessary to prepare them for the rubber courses. A miniature rubber plant is being erected. A mixer is already in place, later a calender will be installed, and a vulcanizer will be put in position during the summer. It is stated that special attention is to be devoted to the study of reclaimed rubber and reclaiming methods. The new work is in charge of Dr. Charles Knight, of the college faculty, who happens, by the way, to be a member of the rubber section of the American Chemical Society. [See THE INDIA RUBBER WORLD, February 1, 1910—page 178.] As such he is chairman of the committee to organize standard methods of rubber analysis, the committee including representatives of two Akron rubber factories. It is understood that work on the standardization is now in progress.

THE Goodyear Tire and Rubber Co. have almost completed a good sized factory at Bowmanville, Canada, which is partly in operation and when completed will employ 100 men. The Goodyear company, who have an extensive trade over the border, have been induced to take this step as a means of offsetting the import duties charged in Canada. The new plant for the present will be devoted to the manufacture of tire. The business of the Canadian branch will be conducted under a Dominion charter, with \$250,000 capital stated, the incorporators being D. B. Simpson, W. F. Stearns, Norris Wilson, D. C. Betts, J. S. Moorcraft, A. W. McMillan, and J. H. McMurtry, the address of all of whom is given as Bowmanville.

CONTROL of the Motz Clincher Tire and Rubber Co. has been transferred through the purchase by the Goodyear Tire and Rubber Co. of the stock held by Charles A. Motz. The Motz company was incorporated April 15, 1905, with \$50,000 capital to market a solid tire invented by Mr. Motz, a lawyer of Akron. These tires have been made under contract and an important business has been done in them.

THE rubber industry was discussed at the annual banquet of "Group Nine," of the Ohio Bankers' Association, at the Akron Country Club, on May 11. Mr. F. A. Seiberling, president of

The Goodyear Tire and Rubber Co., in presenting figures of the rubber industry here, told the bankers that the par value of capital invested in Akron was \$30,000,000, while the market value is \$75,000,000, against \$100,000 invested in 1870. The volume of business of the local rubber factories, which employ 15,000 men, is \$70,000,000 a year, and the annual payroll amounts to \$10,000,000.

Mr. O. S. HART, who recently retired from the position of cashier of the Diamond Rubber Co., though retaining a directorship in the company, will begin his rest by going to the Pacific coast. Mr. Hart has been connected actively with business life in Akron for many years. An old newspaperman, he entered the Diamond company at its organization, and grew steadily with the company.

AN innovation in the way of road signs has been established by The B. F. Goodrich Co. During the past month an automobile equipped with facilities to fix the road signs, which indicate distances, dangerous hills and curves, gasoline stations for automobiles, and the like, has been touring in the East. The company will cover the more important roads throughout the country from the Atlantic to the Pacific.

ANOTHER large building, indicating the growth of the industries of Akron, is being erected by the Pioneer Cereal Co. The city of Cleveland is recognizing how much money is being poured into the city, and the power of the Akron rubber industry. Several Cleveland contracting firms recently have secured large contracts for the erection of additions to the rubber plants.

THE report of Professor E. W. Bemis, of New York, engaged by the city to investigate the water plant and supply of Akron, values the present plant, owned by a private corporation, at \$1,000,000, and gives \$1,200,000 as the cost to erect an entirely new plant from the ground up. The city council have the matter in hand, and public sentiment seems to be in favor of building the new plant.

THE LATEST ARTIFICIAL RUBBER.

THE specification for an "artificial rubber," for which a British patent (No. 28,450—1908) has been granted to J. Blum, of Belgium, is abridged as follows:

A substance believed to have the composition represented by $(C_2H_4)_n$ is made by acting upon a material such as peat, containing leaf wax, with a ferment and a reducing agent, and this substance is treated with a red granular substance obtained from rubber, and salts, to produce a material similar to rubber. The ferment is obtained by placing a piece of imperfectly formed caoutchouc of about the size of a walnut in a quart of sugar solution, and exposing to sunlight. A ferment used for producing higher alcohols of the olefines is also suitable. To a ton of peat is added a ton of water, six fluid ounces of ferment, and 5 gallons of warm water containing 1 pound of sugar, and the action proceeds at a temperature of from 140°-160° F. for three weeks, air and light being excluded. Simultaneously or subsequently any alcohol formed is reduced by a reducing agent. The fermented mass is placed in a steam jacketed cylinder, with 2 pounds of a brownish red granular substance obtained by granulating "Haut Congo rouge" rubber, and 17 ounces of sodium carbonate, and the calcium chloride produced from 21½ ounces of chalk, is run in. The cylinder is filled with water, and heated for four hours. The material thus formed floats on the surface of the water, and is transferred to a cylinder containing methylated spirit, which purifies it. The mass is removed and placed in earthenware pots under petrol or the like. Keeping for six months improves the quality.

THE OBITUARY RECORD.

HENRY CLAY BURTON.

THE sad announcement has to be made that Henry Clay Burton, whose retirement from business affairs on account of ill health was reported in the last issue of this journal, failed to gain any relief from his enforced rest, and on May 10 he passed away, at Newfoundland, New Jersey, at the age of 56. Mr. Burton resided in Brooklyn at No. 651 St. Mark's avenue, and funeral services were held on May 12 in that city at the New York Avenue Methodist Episcopal Church, in which Mr. Burton was an active member of the official board. The services were attended by the surviving members of the board and by representatives of the rubber trade, including the officers of the Rubber Sundries Manufacturers' Association, which organization had Mr. Burton's loyal and helpful support from its foundation.

WARNER ARMS.

WARNER ARMS, president of The Republic Rubber Co., of Youngstown, Ohio, died at his residence in that city on May 15. Mr. Arms was born in Youngstown, November 30, 1851, being the eldest son of Myron Israel Arms and Emmeline E. Warner, the family being among the pioneers of Youngstown. His business career began at an early age, in connection with the iron industry, in which he attained success. Purchasing an interest in the Falcon Iron and Nail Co. (Niles, Ohio), he became in time its president. When their mill was absorbed by the American Tin Plate Co., he became vice president of the latter corporation, and took up his residence in Chicago, moving later to New York with the main offices of the company.

Meanwhile a rubber factory had been established in Youngstown—that of the present Republic Rubber Co.—and at the annual meeting in February, 1903, Mr. Arms was offered the presidency, to accept which he resigned his position with the tin plate company. He at once entered actively upon the control of his new business. The career of the company has been a very successful one, and credit for it is due largely to the capacity of Mr. Arms, and his unceasing attention to business. The funeral occurred on May 20, and was attended by the sales agents of the company from all parts of the country.

Mr. Arms was married on February 17, 1875, to Fannie Williamson Wick, daughter of the late Dennick Wick, of Youngstown, who survives, with a son and four daughters. One of the latter is the wife of Leonard J. Lomasney, who for some years has been vice president and general manager of The Republic Rubber Co.

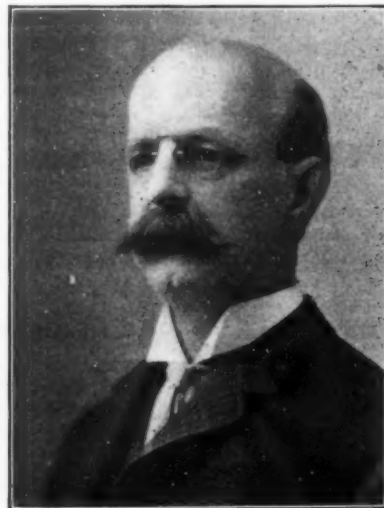
A man who has the respect and love of all his employees generally deserves it. This was notably the case with Mr. Arms. He was a singularly quiet and unassuming man. He was not in the usual sense of the word a talker, but what he said was so clear and concise that it always carried conviction. His business vision was very keen and his knowledge of men and affairs most extensive. He loved accomplishment for its own sake and worked out his business problems with the greatest care, neglecting no details that bore upon them. While he was never effusive, his sympathies were broad and deep, and in a quiet, effective way, he extended many favors and did much good. He was a type of man that the rubber, or indeed, any industry can ill afford to lose.

FRANCIS W. VEAZIE.

FRANCIS W. VEAZIE died at his home in Chelsea, Massachusetts, late in the night of May 2, of heart failure, after an illness of considerable duration. He had been for 40 years connected with one of the large rubber companies, and his whole life, spent in its service, was a record of quiet and unostentatious, but efficient work. While known widely as the superintendent of the Revere Rubber Co., he came into little personal contact with the trade, though a devoted member of the New England Rubber Club.

Mr. Veazie was born in the north end of Boston in 1848,

and in early life removed with his family to Chelsea, where he afterward lived. About the age of 19 he entered the employ of the Boston Elastic Fabric Co., his immediate superior being Charles McBurney. When he entered the company's employ it was just beginning the manufacture of mechanical rubber goods. Under McBurney and other capable managers young Veazie developed rapidly, and in time became superintendent of the works, which meanwhile had become the Revere Rubber Co. This position he held for 30 years, when he retired on account



FRANCIS W. VEAZIE.

of ill health. Mr. Veazie always lived in Chelsea, after his first settlement there, and became one of the best known citizens. He rarely left the city; indeed, it is stated that he had been in the employ of the company 19 years before visiting the Boston office.

While funeral services were in progress, on May 5, all work was suspended at the Revere factory, and many of the employees attended the services. Mr. Veazie was married March 16, 1871, to Miss Emma Pratt, of Chelsea, who survives, together with two married daughters and a son, Francis W. Veazie, Jr.

FRANCIS FLYNN.

FRANCIS FLYNN, who died at his home in Providence, Rhode Island, on May 12, at the age of 74, was during the greater part of his life connected intimately with the rubber footwear industry. Born in County Leitrim, Ireland, he moved to the United States in 1864 and at once entered the employ of the Providence Rubber Shoe Co.—Governor Bourn's factory—where he speedily acquired such a knowledge of the industry as led him to be elected to take charge of the boot and shoe department of the Woonsocket Rubber Co. when that concern was organized. In time Mr. Flynn began to give his whole attention to the manufacture of rubber boots, and when the Woonsocket company's boot mill at Millville was erected Mr. Flynn was put in charge. When the Woonsocket Rubber Co. was amalgamated with the United States Rubber Co., in 1893, Mr. Flynn resigned his position and sold out his stock in the company. Mr. Flynn was the inventor of several improvements in rubber boots, one of which, the "Diamond Tap," brought to him a large sum in royalties. Mr. Flynn is survived by a widow, two sons and two daughters.

ALBERT G. STARKE.

THE death of Albert G. Starke, secretary and treasurer and a director of A. Schrader's Son, Inc., occurred on May 12, at his residence in New York, in his thirty-third year. Representing a company manufacturing tire valves so extensively, he had gained a wide acquaintance in the rubber trade.

News of the American Rubber Trade.

GENERAL RUBBER CO.

AT the annual meeting of the General Rubber Co., at the registered offices in Newark, New Jersey, on May 19, Edgar B. Davis was elected to the vacancy on the board caused by the resignation of John J. Watson, Jr. Three additional positions on the board were created and filled by the election respectively of E. C. Benedict, Ernest Hopkinson, and H. Stuart Hotchkiss. On the next day, in New York, the board elected officers as follows:

President.—LESTER LELAND. (To succeed John J. Watson, Jr.)
Vice President.—WILLIAM F. BASS. (To succeed Lester Leland.)
Second Vice President.—EDGAR B. DAVIS. (To succeed William F. Bass.)
Treasurer.—W. H. BLACKWELL. (To succeed Thomas H. Lee.)
Secretary.—SAMUEL NORRIS.
Assistant Treasurer and Assistant Secretary.—JOHN D. CARBERRY.
Executive Committee.—Lester Leland, William F. Bass, Samuel P. Colt, Anthony N. Brady, Eliza S. Williams, Homer E. Sawyer, and Ernest Hopkinson.

At a special meeting of stockholders, held on May 20, D. Lorne McGibbon, of the Canadian Consolidated Rubber Co., Limited, was elected an additional director.

TYER RUBBER CO. STILL GROWING.

THE Tyer Rubber Co. have purchased a tract of land nearly five acres in extent on Railroad street, Andover, Massachusetts—a tract admirably adapted for carrying out plans which the Tyer company have under way for constructing an entirely new factory. The first building will be erected this year and will be one of a group planned to make within the next two years one of the best equipped rubber factories in existence. This choice of a new location, involving the ultimate abandonment of the Tyer plant, has been made necessary by the fact that further growth on the present site is practically impossible. Within a very few years the Tyer company have erected a new plant complete in all its details, but meanwhile the business of the company has been practically doubled, the annual volume being now stated to be more than \$1,750,000.

FIRE FOLLOWED BY NEW GROWTH.

A FIRE broke out in one of the storehouses of the Safety Insulated Wire and Cable Co., at Bayonne, New Jersey, on April 12. Fortunately it was kept under control and extinguished by the company's fire protection service. While the loss was not large, it necessitated considerable repair work, and as the company were in need of more room it was decided, instead of repairing, to erect instead a new building. In the place of the damaged structure, therefore, will be erected a one-story reinforced concrete building 182 x 45 feet, with a roof of sawtooth design, in two sections of corrugated iron. Adjoining this building is the company's waxing department, in a building where coils of rubber covered insulated wire are finished, ready for electrical testing. A part of the testing department equipment will therefore be transferred to the new building, which will be provided with tanks for soaking, and with two 5 ton electric cranes traveling on opposite sides, for handling heavy coils. The company have under construction also an addition to their blacksmith shop for pipe fitters' use, and a vault for storing office records, both of reinforced concrete.

WALPOLE RUBBER CO. EXPANDING.

THE consolidation is announced of a number of important businesses, under the name of Walpole Rubber Co., at Walpole, Massachusetts. There are included the Massachusetts Chemical Co., doing a successful business since 1891; the Walpole Varnish Works, and the Walpole Shoe Supply Co.; the Valveless Inner Tube Co., of New York; and the Walpole Rubber Co., Limited, of Granby, Quebec. The company is capitalized at \$3,000,000, divided equally between 7 per cent. cumulative pre-

ferred, and common stock. The company now have outstanding \$450,000 of preferred stock, and a new issue of \$500,000 has been underwritten.

The Walpole works are large makers of friction and rubber tapes, having now important contracts with the General Electric Co. The production of rubber heels is also very large, including a contract with the Foster Rubber Co. The company is operating the Gleason fusible core process for water bottles, pneumatic tires, and the like, and this process is to be applied to the making of the valveless inner tubes [see THE INDIA RUBBER WORLD, April 1, 1910, page 255]. The company's reclaiming plant, it is reported, will be largely extended. The board of the Walpole Rubber Co. is composed of men of prominence in important branches of business, in Boston and other leading cities, including Mr. S. H. C. Miner, a Canadian capitalist who is interested particularly in the rubber manufacture.

NORTH BRITISH RUBBER CO. IN CANADA.

MENTION was made in the last issue of this journal of the establishment of a Canadian branch of the North British Rubber Co., Limited (Edinburgh, Scotland), at Toronto. Notice is hereby given of the authorization in the province of Ontario for this corporation to carry on there the manufacture and sale of rubber goods, the capitalization under this license not to exceed \$40,000.

TRADE NEWS NOTES.

WILLIAM SEWARD, JR., who has been representing the Federal Rubber Co. in Chicago, has resigned this connection to become factory manager of the Kelly-Racine Rubber Co., recently organized by C. F. U. Kelly to manufacture tires at Racine, Wisconsin, as reported in the last issue of this paper.

The Federal Rubber Co. (Milwaukee, Wisconsin), on May 20 opened a branch in Atlanta, Georgia, at No. 170 Peachtree street, where they carry a full line of automobile and solid rubber tires as well as their miscellaneous molded goods. The Atlanta branch is in charge of Mr. G. M. Seewald, late of the Alexander Seewald Co., and who for ten years was the local representative of Morgan & Wright.

Picher Lead Co., in view of their growing business in sublimed white and blue leads, litharge and other rubber factory supplies, have opened a warehouse in Cincinnati, at Second and Smith streets, and in San Francisco at No. 585 Mission street.

The G & J Tire Co. (Indianapolis, Indiana) announce that from May 1 the address of their New York branch will be at No. 1924 Broadway, where they have more commodious premises than hitherto in New York. Mr. Marcus Allen, a gentleman of wide experience in the tire business, has accepted the appointment as manager of the company's New York branch.

Ajax-Grieb Rubber Co. (Trenton, New Jersey), a corporation of New Jersey, in which state their capital is \$450,000, have taken out a license to do business in Missouri, under the corporation laws of that state, as a foreign corporation, with headquarters at Kansas City. Their capital in Missouri is \$10,000.

A new waterproof material for covering blasting fuse has been brought out by J. Fitz Brind, managing director of The Isoloid Fuse Co., Limited (Denver, Colorado), a company long engaged in the fuse trade. The new material, which the inventor calls synthite, is referred to as being far less expensive than india-rubber and having greater flexibility than gutta-percha.

The B. F. Goodrich Co. (Akron, Ohio), have taken a long lease on property on Race street, Cincinnati, the owners of which will erect a new building especially adapted for the use of the company. An extensive vulcanizing plant will be installed in the building.



LARGE RUBBER CONVEYOR BELTS.
[Showing Mr. John Forsyth, superintendent of the Boston Belting Co.]

LARGE RUBBER CONVEYOR BELTS

THE high price of crude rubber has not prevented an unusual degree of activity in many branches of the rubber industry. Among the mechanical rubber goods manufacturers who have been filling some large orders of late, particularly in belts and hose, for both of which lines the railroads have been good customers, are the Boston Belting Co. An accompanying illustration relates to two conveyor belts of unusual size lately supplied by them to the Boston and Maine Railroad Co., for use in their Mystic wharf grain elevator in Boston. The two belts are 1,777 and 1,433 feet long, four-ply, and 36 inches wide.

LA CROSSE RUBBER MILLS CO.

WITHIN a year the La Crosse Rubber Mills Co. (La Crosse, Wisconsin), have doubled their producing capacity, adding new machinery and new lasts, and reorganizing the various departments. They have filed a certificate of increase of capital stock to \$400,000, and recently have sold nearly \$100,000 in preferred shares. They are making three grades of rubber goods: "Red Fiber," La Crosse Rubber Mills Co., and Wisconsin Rubber Co.; also a special brand of tennis shoes under the name Badger Rubber Co. One of the distinctive features of the "Red Fiber" brand is the red soling. Maurice C. Clark is general manager, and Charles M. Linthicum manager of sales.

PROFITS OF MANUFACTURED RUBBER CO.

At the annual meeting of shareholders of the Manufactured Rubber Co. (Philadelphia, May 11) President Clayton E. Platt reported a prosperous condition of business. Instead of reporting accounts for twelve months ending January 31, 1910, the statement closed with December 31, to comply with the new federal law taxing corporations, so that only eleven months were covered. But the profits for this period were \$28,730, against \$11,016 for the twelve months preceding. Dividends were paid regularly during the year. The directors were re-elected, and one addition was made

to the board—the last name on the list here: Clayton E. Platt, John S. Arndt, George G. Peterson, Edward J. Dumee, Isaac R. Penny-packer, Harry S. Plott. The company operate a rubber reclaiming plant at Metuchen, New Jersey.

RUBBER FOR PAPER MILL EQUIPMENT.

THE illustration at the foot of this page is based upon a photograph of six rubber covered paper mill rolls, at the works of the Manhattan Rubber Manufacturing Co. (Passaic, New Jersey), where they are made. They are believed to be the largest rolls ever manufactured for paper mill use. The following dimensions are given: Length of face, 182 inches; length over all, 19½ feet; finished diameter, 26¼ inches; weight of iron, 5½ tons each; weight of rubber, 1,000 pounds each.

TRADE NEWS NOTES.

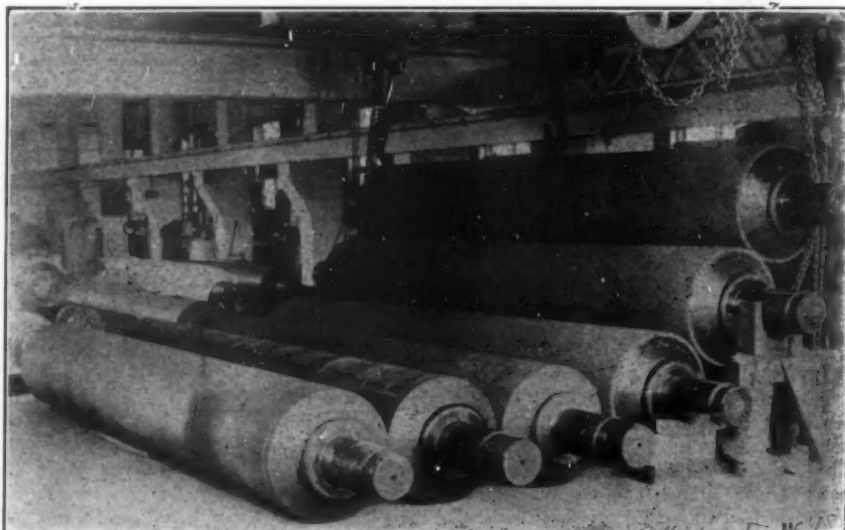
THE directors of the Boston Woven Hose and Rubber Co. have declared a semi-annual dividend of \$3 per share on the preferred stock, common stock, and a quarterly dividend of \$2 per share on the both payable June 15, 1910 to stockholders of record June 6.

It is stated that several large rubber manufacturing companies intend exhibiting at the Ohio Valley Exposition, to be held in Cincinnati during August and September. It is planned to have a miniature rubber factory in operation in one or more of the exhibits. Such a plant, it is known, will be installed by The B. F. Goodrich Co. (Akron).

New Jersey Car Spring and Rubber Co. announce the appointment, as manager of their New York branch, of Mr. Frank Y. Stewart, who for a number of years has been connected prominently with the rubber goods trade in the metropolitan district. The New York branch is located uptown at Columbus Circle.

The Voorhees Rubber Manufacturing Co. (Jersey City, New Jersey) have leased the store, basement, and sub basement at No. 36 Vesey street, New York.

The Bayne Subers Tire and Rubber Co. (Cleveland, Ohio), incorporated in 1907, with \$5,000 capital, which a year later was increased to \$100,000, in view of a projected increase in the scope of their business, on May 10, 1910, filed with the secretary of state of Ohio a certificate of increase of capital to \$250,000.



LARGE RUBBER ROLLS FOR PAPER MILLS.

NEW INCORPORATIONS.

RUBBER Cover Co., February 14, 1910, under the laws of New York; capital, \$4,000. Incorporators: Henry Sallop, No. 214 East Thirteenth street; Samuel A. Kobac, No. 154 Carroll street, and Julius Kaiser, No. 7 Attorney street, all of New York city. To make automobile accessories.

Utah Auto Tire Repair Co., April 4, 1910, under the laws of Utah; capital, \$10,000. Incorporators: W. C. Ewing, A. S. Wright, L. E. Higgins, A. J. Bruneau, and Alice Manning, all of Salt Lake City, Utah.

Ross Rubber Manufacturing Co., April 6, 1910, under the laws of Wisconsin; capital, \$25,000. Incorporators: L. A. Ross, R. G. White, and George N. Graham, all of Mineral Point, Wisconsin. To acquire the business of Badger Rubber Works, Inc., at Mineral Point [see THE INDIA RUBBER WORLD, July 1, 1909—page 333], and carry on the manufacture of rubber goods. It is proposed to make tires and a general line of mechanicals.

James L. Gibney & Bro., April 11, 1910, under the laws of New York; capital, \$100,000. Incorporators: James L. Gibney, John L. Gibney, both of No. 215 North Broad street, Philadelphia; and Joseph H. Fargis, No. 71 Nassau street, New York city. THE INDIA RUBBER WORLD is informed from the Philadelphia house of James L. Gibney & Bro., who are important in the rubber tire trade: "We are opening up a new store on Fifty-fourth street just off Broadway, and we have incorporated in New York city, so as not to be a foreign corporation, and we hope to run our business in New York on the same lines as we have previously done in Philadelphia."

Textile Rubber Co. of New York, April 15, 1910, under the laws of New York; capital, \$50,000. Incorporators: Thomas Hydes, Trenton, New Jersey; Harold A. Andrewes, No. 379 Eighth street, Brooklyn, New York, and Frank E. Sincere, No. 243 West Ninety-eighth street, New York City.

Neverslip Puncture-Proof Tire Co., May 2, 1910, under the laws of Delaware; authorized capital, \$200,000. Incorporators: Howard S. Shafer, H. E. Shafer, and Fred Wunderly, all of Nazareth, Pennsylvania. To acquire letters patent on a pneumatic tire for automobiles.

International Pneumatic Auto Wheel Co., May 3, 1910, under the laws of Delaware; authorized capital, \$1,000,000. Incorporators: Charles M. Saulson, No. 192 Clairmont avenue, and Grover D. Edwards, No. 521 West One Hundred and Eleventh street, New York City, and Harry W. Davis, Wilmington Delaware.

Akron Inner Tube Co., May 5, 1910, under the laws of Ohio; authorized capital, \$10,000. Incorporators: Jesse P. Dice, Thomas E. Raley, Frank J. Mishler, Charles J. Alpeter, and John D. McCoy. Location: Akron, Ohio.

Consolidated Palo Amarillo Rubber Co., May 7, 1910, under the laws of Delaware; authorized capital, \$20,000,000. Incorporators: Harry W. Davis, Wilmington, Delaware; Howard E. Brown, and William S. Allen, No. 32 Nassau street, New York city. A company by the same name was mentioned in THE INDIA RUBBER WORLD March 1, 1909 (page 214), as having been incorporated in one of the western United States, with \$20,000,000 capital, to extract rubber from the Mexican "yellow tree." William H. Ellis was then mentioned as active in connection with the business. Presumably the company has been reincorporated in Delaware.

Raley Rubber Co., May 14, 1910, under the laws of Connecticut; authorized capital, \$25,000. Incorporators: Hiram S. Raley, Charles Hofacker, and C. Henry Hofacker, all of New Haven, Connecticut. The company began business at the first of this year.

Standard Rubber Co., May 12, 1910, under the laws of Maine; authorized capital, \$500,000. Directors: E. M. Leavitt (president and treasurer), Winthrop, Maine; Lewis A. Burleigh (clerk), Ernest L. McLean, M. M. Spinney, and M. F. Sheehan, Augusta, Maine.

NEW INCORPORATIONS.

ACUSHNET Process Co., April 11, 1910, under the laws of Massachusetts; authorized capital \$25,000. Incorporators: Allen T. Weeks, New Bedford, Mass.; Harrison M. Davis and Ralph W. Dunbar, Boston. To deal in rubber goods.

General Tire Co., May 9, 1910, under the laws of Ohio; capital, \$10,000. Incorporators: A. V. Boettes, J. H. Marvin, Phil Eid, A. J. Braunwart, Jr., and John L. Boake. Location: Cincinnati.

UNITED STATES RUBBER CO.'S ISSUES.

TRANSACTIONS on the New York Stock Exchange for four weeks, ending May 21:

COMMON STOCK, \$25,000,000.

[The treasury of a subsidiary company holds \$1,344,000.]

Last Dividend, April 30, 1900—1%.

Week April 30	Sales 4,000 shares	High 42¾	Low 37½
Week May 7	Sales 8,900 shares	High 41	Low 38
Week May 14	Sales 10,650 shares	High 46¾	Low 41
Week May 21	Sales 1,800 shares	High 45½	Low 42½

For the year—High, 52½, Jan. 3; Low, 35, Feb. 7.
Last year—High, 57½; Low, 27.

FIRST PREFERRED STOCK, \$39,824,400.

Last Dividend, April 30, 1910—2%.

Week April 30	Sales 1,700 shares	High 112	Low 108
Week May 7	Sales 2,380 shares	High 112	Low 109½
Week May 14	Sales 1,300 shares	High 114	Low 111½
Week May 21	Sales 900 shares	High 113¾	Low 112½

For the year—High, 116½, Jan. 10; Low, 108, Feb. 7.
Last year—High, 123½; Low, 98.

SECOND PREFERRED STOCK, \$9,965,000.

Last Dividend, April 30, 1910—1½%.

Week April 30	Sales 200 shares	High 76½	Low 76
Week May 7	Sales 200 shares	High 78	Low 77
Week May 14	Sales 1,100 shares	High 80	Low 79
Week May 21	Sales 700 shares	High 80	Low 75½

For the year—High, 84, Jan. 3; Low, 75½, May 19.
Last year—High, 89½; Low, 67½.

SIX PER CENT. TRUST GOLD BONDS, \$19,500,000.

Week April 30	Sales 61 bonds	High 103¾	Low 103½
Week May 7	Sales 58 bonds	High 103½	Low 102½
Week May 14	Sales 99 bonds	High 103¾	Low 103
Week May 21	Sales 90 bonds	High 103¾	Low 103

For the year—High, 104½, Jan. 15; Low, 102½, May 7.
Last year—High, 106; Low, 102½.

A PROGRESSIVE BUSINESS.

THE merit of rust proof woven steel armor for rubber hose subjected to high pressures and severe uses in and about shipyards, railroads, machine shops and mines is well illustrated by the success of the Woven Steel Hose and Rubber Co. (Trenton, New Jersey). This company was organized in 1899. Four years later they moved to larger quarters, in South Warren street, where they remained until 1907. During that interval they discovered that their premises would not admit of expansion commensurate with the promised growth of their business, and an advantageous location was selected on the Reading railroad and a new plant erected, several enlargements of which have already been made. The company, organized originally to make the steel armor indicated by its name, has added new lines from time to time, including, in addition to high pressure hose, fibrous packings for steam, air, and water, and so on. The latest addition is their "Autobestine," a brake lining for motor cars and hoisting machinery. There have been on changes in the original officers and management. The machinery employed was perfected by Mr. Karl G. Roebbling, treasurer of the company, and one of the members of John A. Roebbling's Sons Co., of international prominence in the steel industry. J. Russel Kelso, general manager, is largely responsible for the various improvements which have been made and the additions to the lines of products, as well as for the reputation which the company enjoys as manufacturers of high grade goods. A happy

thought in the selection of the company's brands is the adoption of names suggestive of armor, such as "Defender" and "Protector," and as a trade mark, a reproduction of the suit of armor worn by Charles the Bold, of Burgundy, encircled by a piece of armored hose embellishes their literature.

NEW PRESIDENT OF THE AJAX-GRIEB.

THE portrait herewith is that of Mr. William G. Grieb, the new president of the Ajax-Grieb Rubber Co. (Trenton, New



WILLIAM G. GRIEB.

Jersey), makers of the "Ajax" automobile tires and other rubber goods. It was back in 1873 that Mr. Grieb first became identified with rubber in the wholesale rubber footwear business of J. G. Grieb & Sons, in Philadelphia. By 1887 he had become senior partner of this firm. In time they acquired a rubber factory in Trenton for making shoe soles and other specialties for their trade and this led to the incorporation of the Grieb Rubber Co. in New Jersey in 1899 with Mr. W. G.

Grieb as president. In 1906 the Ajax Standard Rubber Co., of New York, was consolidated with the Grieb Rubber Co. and the manufacturing of the two concerns combined at the Trenton works, which were enlarged for the purpose, Mr. Grieb accepted the vice presidency of the consolidated company and has now become president.

CHANGES OF ADDRESS.

G. EDWARD HARICH, broker in crude rubber in Boston, has removed his offices to No. 229 Berkeley street.

Joseph Cantor, dealer in rubber substitutes and rubber manufacturers' supplies, in New York, has removed his offices to Nos. 21-24 State street. Mr. Cantor is the American agent of Typke & King, Limited, London.

TRADE NEWS NOTES.

THE Peerless Rubber Manufacturing Co. (New York) announce new agencies as follows: In Seattle, Washington, Seattle Hardware Co., at First and King streets; in Portland, Oregon, the Gauld Co., Nos. 69-75 North Twelfth street, corner Everett.

Robert Badenhop, broker and importer of crude rubber, has removed his office to No. 82 Beaver street, New York. Owing to the death of a former factor he has transferred his financial arrangement to Messrs. Frederick Probst & Co.

The importance of the trade in Great Britain of The B. F. Goodrich Co. (Akron, Ohio) is indicated by our London contemporary giving a list of their travelling staff in that country, and the territory allotted to each.

The Western Rubber Co. have awarded contracts for two additional buildings, of brick and steel, each one story, and respectively 45 x 125 and 45 x 85 feet, to cost, with their equipment, \$40,000 or more. G. B. Slate is general manager and C. Edward Hyke general superintendent of the factory.

Mr. George Louis Richards, long connected with the Boston Rubber Shoe Co., and more than once mayor of Malden, Massachusetts, is one of the directors of the new Buffalo Shoe Co., formed to take over the business of the Flex-I-Dura Co., of Pepperell, Massachusetts.

PERSONAL MENTION.

CAPTAIN ARTHUR F. TOWNSEND, president and general manager of the Manhattan Rubber Manufacturing Co. (New York), has gone to Fort Riley, Kansas, where he and other militia officers will spend ten days in regular army drill under special order of the United States government.

An announcement has been issued of the marriage, to occur on June 8, at Longwood, Massachusetts, of Mr. Ernest Jacoby and Miss Alice Gardiner Hovey. Mr. Jacoby is in charge of the Boston office of Messrs. A. T. Morse & Co., crude rubber merchants, of New York.

Mr. Charles A. Daniels, of the Quaker City Rubber Co. (Philadelphia), returned recently from a six weeks' vacation, which took him as far south as Havana.

Mr. F. J. Maywald, of New York—a chemist extensively known in the rubber industry—has been appointed by Mayor Gaynor a member of the municipal explosive commission. This body has charge of the regulation of the sale, storage, and so on, of explosive and combustible substances in the city.

Mr. D. Lorne McGibbon, president of the Canadian Consolidated Rubber Co., Limited, was one of the principal speakers at a well attended meeting of the Economic Club, in New York, on the evening of May 18, when the topic of discussion was reciprocity in trade with Canada. The manufacturers of the Dominion, said Mr. McGibbon, were ready for a treaty of reciprocity, but it remained for the government at Washington to take the first steps.

The Hon. L. D. Apsley, president of the Apsley Rubber Co. (Hudson, Massachusetts), accompanied by Mrs. Apsley, sailed about the middle of the month for Europe.

Dr. John C. Willis, director of the royal botanic gardens in Ceylon, since his return home has published an interesting account of his journey around the world, including notes on his experiences in the United States. Dr. Willis is the author of an important treatise on "Agriculture in the Tropics," reviewed in THE INDIA RUBBER WORLD not long since. While in the States Dr. Willis delivered a series of lectures on the same subject at Harvard University.

Mr. Ernest E. Buckleton, secretary and general manager of Northwestern Rubber Co., Limited, of Liverpool, arrived in the United States late in the last month for a brief visit.

Mr. and Mrs. W. J. B. Stokes, of Trenton, New Jersey, have announced the marriage of their daughter Mary Eleanor to Mr. John S. Dunham, also of Trenton, on Wednesday, March 30. Mr. Stokes is interested largely in the rubber industry. Mr. Dunham is a merchant, his father being the founder of what is now the largest retail store in New Jersey. The newly wedded pair are now living in Trenton in the beautiful home given to them as a wedding gift from the bridegroom's father and furnished by Mr. Stokes.

TRADE NEWS NOTES.

THE Federal Rubber Co. (Milwaukee, Wisconsin) announce the change of their New York office to No. 211 West Fifty-eighth street.

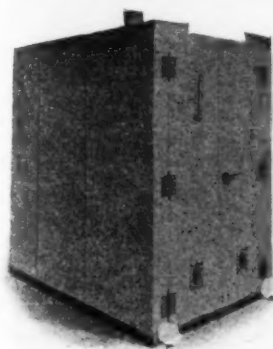
Mr. J. W. Culver has been appointed sales agent in St. Louis of the Boston Woven Hose and Rubber Co., in place of Mr. C. W. Barrett, resigned. Mr. Culver was previously connected with the Chicago branch of this company for several years.

The business known as W. J. Williams Co., in Chicago, manufacturers of molded goods, gaskets and so on, have adopted the name The Williams-Bowman Rubber Co., and moved into larger premises, at No. 171 North Green street. They have put in new molds and have otherwise enlarged their facilities.

Gustave Kush, who is in the mechanical rubber goods trade, announces the change of his location from No. 60 to No. 61 Beckman street, New York.

McEWEN'S TIRE VULCANIZER.

THE McEwen patented portable vacuum vulcanizer for rubber tires has for its chief characteristic the absence of steam in its operation but is referred to as being capable of producing a higher heat and a better heat for vulcanizing rubber, fabric,



THE McEWEN VULCANIZER.

leather, or other materials into a homogeneous mass without any injury to any of the materials employed than any of the other systems in use. It is stated that a heat from 1 deg. to 500 degs. F. can be obtained readily in this vulcanizer with positive regulation in a very short space of time. The idea is that this vulcanizer facilitates the recovering and repairing and also the building of automobile tires, and is cheaper in operation than a steam plant. These vulcanizers are economical in the amount of space occupied. There is no bolting of any door or cover required in opening or closing the apparatus; either the opening or closing is accomplished with one operation. The inventor and patentee of this apparatus is Mr. Fred E. McEwen, No. 562 West One Hundred and Sixty-fourth street, New York.

THE "IDEAL" SLEEVE FOR TIRES.

A DEVICE of interest to motorists, and one which has proved of much excellence, is illustrated herewith. It is designed to insert on the inner side of a tire tube to remedy a blow out, or, if applied to a weak spot, to keep an old shoe in service. The "Ideal" sleeve is made to conform with the inside of the shoe and completely take the strain from the latter. These



THE IDEAL SLEEVE.

sleeves are made from high grade cotton duck, four to seven plies, according to size, with beveled edges to insure a smooth surface for the tube, and have a flap on each side which passes over the rim to hold the sleeve in place. [Voorhees Rubber Manufacturing Co., Jersey City, New Jersey.]

THE "UNIVERSAL" STEEL CALENDER SHELL.

THE rapidly increasing demand of late years for rubber products made up from sheet stock has so taxed the manufacturers that practically a reorganization of shop practice has been necessary. One drawback has been the matter of getting the sheet stock ready for use after it has been milled, at the same time maintaining the quality of the stock. An improvement has been in the introduction of metal shells instead of wooden rolls, the advantage of the former being manifold.

In the use of metal shells the heat of the stock is removed in

half the time, as the heat from the inner portion of the roll is transmitted through the metal to the hollow interior and then carried away by ventilation, consuming the least possible time in cooling the stock and still procuring a proper "set" to the stock. By this more rapid removal of the heat it was found that blooming, where sulphur is used, has been materially retarded and further, that the all metal shell used in the metal frame work of the calender, forms an immediate ground for the static electricity, generated by the friction of milling, and practically eliminating magnetism of the stock.

In addition to the above consideration has been the question of producing a metal shell that will stand strain, and have a maximum of strength with a minimum of materials. The Universal steel calender stock shell manufactured by W. F. Gammeter (Cadiz, Ohio) is offered to rubber manufacturers as combining the desirable requirements above outlined.

RUBBER READY FOR TAPPING.

THE Tabasco-Campeche Timber and Fruit Co., Inc., with properties in Mexico, are inviting subscriptions to an additional issue of preferred stock, the proceeds of which are to be used for extending their rubber plantation over a large area. They will also acquire an important amount of mahogany timber. The company are in a position to derive revenues at once from the sale of mahogany and of rubber from trees now arrived at a productive age. The headquarters of the company are at Moberly, Missouri, where Mr. Ed. F. Haley, the president, and Mr. James V. O'Leary, the secretary-treasurer, are business men of high standing, with favorable connections elsewhere in the United States and in Mexico.

NEW TRADE PUBLICATIONS.

NEW JERSEY CAR SPRING AND RUBBER CO. (Jersey City, New Jersey), devote their Catalogue No. 20 to Garden Hose, of which they make a number of brands, each adapted to a particular use, and each having special characteristics which are pointed out in this booklet. [3 3/8" x 6". 16 pages.]

STANDARD BRASS AND IRON WORKS (Milwaukee, Wisconsin), issue a catalogue of their "Milwaukee Made Goods"—their products as brass founders and machinists—including various accessories for all kinds of hose. There are included couplings for brewers' hose and hose for other purposes; hose bands, hose cocks, and so on. [6 1/8" x 9 1/4". 12 pages.]

ST. LOUIS RUBBER CEMENT CO. (St. Louis), issue their Catalogue No. 8 of Cements, Tape and Accessories, which covers an unusual number of products under these headings. They make specialties for use in connection with automobiles and bicycles, in leather shoe making, electrical work, and for use by book binders and engravers. [3 1/2" x 6 1/4". 49 pages.]

ALSO RECEIVED.

Boston Belting Co., Boston.—Two Big Rubber Belts. 8 pages.
Metal Lock Tile Co., Philadelphia.—Colored designs for metal lock tiling on a scale of 1 inch: 1 foot. 13 sheets.

Barrett Manufacturing Co New York and Philadelphia.—Good Roads: How to Build, Preserve and Make Them Dustless. [Relates to "Tarvia."] 40 pages.

Central Electric Co., Chicago.—May, 1910, Price List. Electrical Supplies. [Applying to 1909 Catalogue No. 26. Products of the Okonite Co. (New York).] 72 pages.

The Bristol Co., Waterbury, Connecticut.—Bulletin No. 124. Bristol's Atmospheric Recording Thermometer. 4 pages.

RECLAIMED rubber imported into Japan is classified for tariff purposes as "India-rubber not specially mentioned," and dutiable at the rate of 10 per cent. *ad valorem*, if accompanied by a certificate of origin.

THE Inambari Pará Rubber Estates, Limited, operating in Peru, reported the collection of 13,486 pounds of rubber "from November, 1909, to April 8, 1910." For the year ended June 30, 1908, the amount collected was reported at 12,307 pounds.

Review of the Crude Rubber Market.

FROM the beginning of the month just closed the indication has been general of a decline in the rubber market. The cause of the beginning of the decline was enshrouded in doubt, which the developments of the month have failed to dispel. It only remains to be reported that prices today are lower than a month ago for every grade that remains in the market to be traded in. The decline in prices is recorded in the comparative table which forms part of this report.

Holders of rubber, naturally, have exerted themselves to the utmost to prevent a break in price damaging to their interest; consumers, naturally, have abstained as far as possible from contracting for rubber. Meanwhile it is impossible to say how long buying can be refrained from, or how much rubber will be available in the hands of sellers in the last analysis.

Two events late in the month which had an important bearing upon the international rubber market were the fortnightly London auction on May 23 and the monthly inscription at Antwerp on the 26th. Both sales marked a decline, with the effect of emphasizing the weakness already evident in the trade on both sides of the Atlantic.

At the London sale, earlier in the month, much of the plantation rubber on offer was withdrawn at the first indication of a break in prices. A few days later the same rubber found a ready sale at reduced prices. On May 23 the offerings on the whole were not in active demand, though fine crepe fetched as high as 10s. 5½d. [= \$2.55]—7d. lower than a fortnight before.

Of about 330 tons offered at Antwerp less than 100 tons found buyers, at a decline of 2.50 francs per kilogram [= 22 cents per pound] for the better grades.

Arrivals at Pará (including caucho) during May were on a smaller scale than usual, although the total for the crop year ending June 30 will be somewhat larger than ever before recorded. The inference is the unusually high prices prevailing for sometime past have hastened exports from the Amazon as suggested in an editorial in THE INDIA RUBBER WORLD last month (page 261). It would be unnatural to suppose that any rubber would be withheld from market, that could possibly be put within the reach of buyers, under such market conditions as prevailed for some months. The following figures may be of interest for comparison, showing the Pará arrivals from July 1 to the end of May in four crop years (the figures representing tons):

	1906-07.	1907-08.	1908-09.	1909-10.
July-December	14,720	14,240	15,735	16,710
January	3,780	4,860	5,480	5,490
February	5,060	5,340	5,040	4,760
March	5,830	4,240	4,140	5,210
April	4,490	3,100	3,760	3,600
May	2,625	3,210	2,340	a 1,990
Total, 11 months	36,505	34,990	36,495	37,760
June	1,500	1,660	1,570	
Total, crop year	38,005	36,650	38,065	

[a To and including May 29, 1910.]

At the end of the first six months of the current crop year the increase over last year was only 1,000 tons. The above figures for the subsequent months of the crop year, with June figures yet to come, do not indicate a greater gain for the whole year over previous records.

London auction prices for plantation rubber, May 10 [reported by Lewis & Peat]:

<i>Sheet and Biscuits:</i>	
Smoked sheet	11/3@11/5
Good to fine sheet	10/3@10/10
Good to fine biscuits	10/3@10/10

<i>Crepe:</i>	
Very pale	10/9@11/1½
Medium and palish	1/6@10/10
Dark and brown	9/3@ 9/10
<i>Unwashed Scrap:</i>	
Medium to fine	8/4@ 8/6
Dark and low	6/6@ 7/9

Current quotation for hard fine Pará, 10s. 5d. [= \$2.54].

NEW YORK QUOTATIONS.

Following are quotations at New York for Pará grades, one year ago, one month ago, and May 31—the current date:

PARÁ,	June 1, '09.	May 1, '10.	May 31.
Islands, fine, new	131@132	275@277	225@226
Islands, fine, old	132@133	none here	none here
Upriver, fine, new	134@135	281@282	240@241
Upriver, fine, old	135@136	none here	242@243
Islands, coarse, new	66½@ 67	109@110	95@ 96
Islands, coarse, old	70@ 71	none here	none here
Upriver, coarse, new	98@ 99	182@185	160@161
Upriver, coarse, old	none here	none here	none here
Cametá	77@ 78	126@127	109@110
Caucho, ball	87@ 88	180@182	155@156
Caucho, slab	76@ 77	none here	none here
Ceylon, fine sheet	135@136	285@288	229@230

AFRICAN.

Lopori, ball, prime	108@109	none here	none here
Lopori, strip, prime	none here	none here	none here
Aruwimi	96@ 97	none here	none here
Upper Congo, ball, red	100@101	190@191	190@191
Ikelemba	none here	none here	none here
Sierra Leone, 1st quality	99@100	188@190	165@168
Massai, red	99@100	188@190	165@168
Soudan niggers	80@ 90	none here	none here
Cameroon, ball	68@ 69	128@130	110@111
Benguela	61@ 62	none here	none here
Madagascar, pinky	92@ 93	125@126	none here
Accra flake	22@ 23	40@ 42	none here

CENTRALS.

Esmeralda, sausage	85@ 86	170@172	133@134
Guayaquil, strip	73@ 74	130@135	106@107
Nicaragua, scrap	81@ 82	167@168	128@129
Panama	67@ 68	none here	none here
Mexican, scrap	82@ 83	170@172	128@129
Mexican, slab	61@ 62	none here	none here
Mangabeira, sheet	55@ 56	none here	none here
Guayule	34@ 35	110@110	95@100

EAST INDIAN.

Assam	95@ 96	none here	none here
Pontianak	4¾@ —	9¾@ 10¾	8½@ 9
Borneo	35@ 45	none here	none here

Late Pará cables quote:

	Per Kilo.		Per Kilo.
Islands, fine	10\$100	Upriver, fine	12\$350
Islands, coarse	3\$600	Upriver, coarse	7\$600
		Exchange	16d.

Rubber Scrap Prices.

LATE New York quotations—prices paid by consumers for carload lots, per pound—show a slight decline since last month, as follows:

	May 1.	June 1.
Old rubber boots and shoes—domestic	10¾@11	10¾@10¾
Old rubber boots and shoes—foreign	10¾@10¾	10¾@10¾
Pneumatic bicycle tires	7 @ 7¼	7¼@ 7¾
Automobile tires	7¾@ 8	10½@10¾
Solid rubber wagon and carriage tires	9¾@ 9¾	10¼@10¾
White trimmed rubber	10 @11	10 @11
Heavy black rubber	6¼@ 6½	6¼@ 6¼
Air brake hose	5¼@ 5½	6 @ 6¼
Garden hose	2¾@ 3	2¾@ 3
Fire and large hose	3¾@ 3½	3¾@ 3½
Matting	1¾@ 1¾	1¾@ 1¾

Statistics of Para Rubber (Excluding Caucho).

		NEW YORK.					
		Fine and Medium.		Coarse.	Total 1910.	Total 1909.	Total 1908.
Stocks, March 31	tons	198	82	=	280	451	320
Arrivals, April		415	121	=	536	1405	...
Aggregating		613	203	=	816	1856	...
Deliveries, April		486	187	=	673	543	...
Stocks, April 30		127	16	=	143	1313	...
		PARA.			ENGLAND.		
		1910.	1909.	1908.	1910.	1909.	1908.
Stocks, March 31	tons	835	1561	975	540	330	1975
Arrivals, April		2210	2350	...	2408	1440	...
Aggregating		3045	3911	...	2948	1770	...
Deliveries, April		2785	2976	...	1848	1050	...
Stocks, April 30		260	935	...	1100	720	2005
World's visible supply, April 30	tons	3,058	3,828	...			
Para receipts, July 1 to April 30		29,230	27,670	...			
Para receipts of caucho, same dates		6,530	6,690	...			
Afloat from Para to United States, April 30		125	477	...			
Afloat from Para to Europe, April 30		1,430	1,153	...			

New York.

In regard to the financial situation, Albert B. Beers (broker in crude rubber and commercial paper, No. 68 William street, New York), advises as follows: "During May there has been a good demand for commercial paper at full rates, the best rubber names ruling at $5\frac{1}{4}$ to $5\frac{1}{2}$ per cent., and those not so well known at $5\frac{1}{2}$ to 6 per cent."

NEW YORK PRICES FOR MARCH (NEW RUBBER).

	1910.	1909.	1908.
Upriver, fine	2.09@2.38	1.22@1.26	.70@.83
Upriver, coarse	1.30@1.70	.93@.97	.48@.59
Islands, fine	2.03@2.45	1.18@1.21	.68@.80
Islands, coarse	.90@1.07	.55@.61	.41@.43
Cametá	.95@1.28	.63@.67	.41@.48

NEW YORK PRICES FOR APRIL (NEW RUBBER).

	1910.	1909.	1908.
Upriver, fine	2.58@2.92	1.21@1.26	.78@.84
Upriver, coarse	1.70@1.87	.92@.96	.55@.58
Islands, fine	2.45@2.78	1.18@1.21	.75@.80
Islands, coarse	1.07@1.15	.56@.59	.42@.44
Cametá	1.28@1.35	.63@.69	.44@.48

African Rubbers.

NEW YORK STOCKS (IN TONS).

April 1, 1909	178	November 1, 1909	134
May 1	268	December 1	134
June 1	156	January 1, 1910	228
July 1	268	February 1	134
August 1	130	March 1	161
September 1	123	April 1	121
October 1	67	May 1	125

POSITION WANTED

WANTED.—Position as Superintendent or Assistant by a practical man of proved ability. An organizer and economist. An expert compounder of mechanical and insulation stocks. Given opportunity can effect notable improvements in factory administration and manufacturing costs. Highest references. Address Box No. 552, care of THE INDIA RUBBER WORLD.

PARA RUBBER VIA EUROPE.

			POUNDS.
APRIL 21.—By the <i>Majestic</i> —London:			
Livesey & Co. (Coarse).....	10,000		
Poel & Arnold (Coarse).....	22,500		32,500
APRIL 21.—By the <i>President Grant</i> —Hamburg:			
New York Commercial Co. (Fine).....	7,000		
APRIL 25.—By the <i>Cedric</i> —Liverpool:			
N. Y. Commercial Co. (Fine).....	100,000		
Livesey & Co. (Coarse).....	10,000		110,000
APRIL 26.—By the <i>Marousijne</i> —Trinidad:			
General Export Co. (Coarse).....	5,000		

MAY 2.—By the <i>Carmania</i> —Liverpool:			
New York Commercial Co. (Fine)	36,000		
MAY 5.—By the <i>Teutonic</i> —London:			
Poel & Arnold (Coarse)	20,000		
MAY 5.—By the <i>Pennsylvania</i> —Hamburg:			
George A. Alden & Co. (Fine)	20,000		
Poel & Arnold (Fine)	8,000		
A. T. Morse & Co. (Fine)	4,500		
Poel & Arnold (Coarse)	27,000		
George A. Alden & Co. (Coarse)	15,000		74,500
MAY 6.—By the <i>Ucayali</i> —Iquitos:			
Edmund Reeks & Co. (Caucho)	2,500		

MAY 12.—By the <i>Graf Waldersee</i> —Hamburg:			
New York Commercial Co. (Fine)	12,000		
MAY 16.—By the <i>Celtic</i> —Liverpool:			
New York Commercial Co. (Fine)	9,000		
MAY 17.—By the <i>Suriname</i> —Bolívar:			
General Export Co. (Fine)	30,000		
Iglesias Lobo & Co. (Coarse)	10,000		40,000
MAY 19.—By the <i>Blucher</i> —Hamburg:			
New York Commercial Co. (Fine)	5,000		
MAY 21.—By the <i>Campania</i> —Liverpool:			
A. T. Morse & Co. (Coarse)	2,500		

Antwerp.

RUBBER ARRIVALS FROM THE CONGO.

APRIL 25.—By the steamer <i>Bruxellesville</i> :			
Bunge & Co.	(Société Générale Africaine) kilos	50,600	
Do	(Comité Spécial Katanga)	5,000	
Do	(Comptoir Commercial Congolais)	1,100	
Do	(Société Anversoise)	300	
Do	(Chemins de fer Grands Lacs)	7,400	
Société Coloniale Anversoise	(Cie. du Lomami)	8,800	
Do	(Sud Cameroon)	4,700	
L. & W. Van de Velde	(Cie. du Kasai)	91,000	
Do		3,000	171,900
MAY 17.—By the steamer <i>Albertville</i> :			
Bunge & Co.	(Société Générale Africaine) kilos	47,300	
Do	(Comité Spécial Katanga)	4,000	
Do	(Comptoir Commercial Congolais)	14,200	
Do	(Cie. du Kasai)	63,700	
Société Coloniale Anversoise	(Belge du Haut Congo)	600	
Do	(Sud Cameroon)	9,700	
Do	(Cie. française du Haut Congo)	8,400	
Cassart & Henrion		1,000	
Charles Dethier	(American Congo Co.)	2,000	
L. & W. Van de Velde		3,000	153,900

Rubber Receipts at Manaus.

DURING April and ten months of the crop season, for three years (courtesy of Messrs. Scholz & Co.):

		APRIL.		JULY-APRIL.	
		1910.	1909.	1908-09.	1907-08.
FROM—					
Rio Purús-Acre	tons	376	545	432	9,481
Rio Madeira		269	141	302	3,225
Rio Juruá		463	280	541	4,085
Rio Javary-Iquitos		38	96	72	2,571
Rio Solimões		70	35	29	1,167
Rio Negro		40	72	100	684
TOTAL		1,256	1,169	1,476	21,213
Caucho		1,22	781	792	6,209
TOTAL		2,278	1,950	2,268	27,422

London.

THE London office of Messrs. Hecht, Levis & Kahn, rubber merchants, has been removed from 36, Fenchurch street, to 21, Mincing lane, E. C.

IMPORTS FROM PARA AT NEW YORK.

[The Figures Indicate Weight in Pounds.]

MAY 4.—By the steamer <i>Frances</i> , from Manáos and Pará:					
IMPORTERS		Fine.	Medium.	Coarse.	Caucho.
Poel & Arnold	54,700	3,800	2,500	22,700	81,700
A. T. Morse & Co.	29,300	9,800	22,200	7,100	68,400
New York Commercial Co.	43,200	9,700	11,600	5,200	68,300
TOTAL	127,800	23,300	36,300	33,000	220,400
MAY 5.—By the steamer <i>Rio de Janeiro</i> , from Pará:					
New York Commercial Co.	37,900	5,600	1,500	...	45,000
Poel & Arnold	14,600	4,300	600	...	19,500
William E. Peck & Co.	1,400	...	2,000	...	3,400
TOTAL	53,900	9,900	4,100	...	67,900
MAY 16.—By the <i>Dunstan</i> , from Manáos and Pará:					
Poel & Arnold	20,800	6,600	43,800	200	71,400
A. T. Morse & Co.	...	...	25,700	700	26,400
Henderson & Korn	11,800	...	...	...	11,800
Lawrence Johnson & Co.	...	...	11,200	...	11,200
William E. Peck & Co.	1,100	...	3,300	...	4,400
New York Commercial Co.	300	...	900	300	1,500
TOTAL	34,000	6,600	84,900	1,200	126,700
MAY 25.—By the steamer <i>Coarense</i> , from Pará:					
Poel & Arnold	10,800	1,000	77,200	10,400	99,400
New York Commercial Co.	12,500	2,800	8,700	2,000	26,000
A. T. Morse & Co.	400	300	27,800	...	28,500
Henderson & Korn	13,600	...	4,600	...	18,200
A. Amsinck & Co.	4,700	400	2,800	...	7,900
William E. Peck & Co.	2,900	300	2,600	...	5,800
TOTAL	44,900	4,800	123,700	12,400	185,800

OTHER NEW YORK ARRIVALS.

CENTRALS.

[*This sign, in connection with imports of Centrals, denotes Guayule rubber.]

POUNDS.

APRIL 21.—By the *President Grant*=Hamburg:
Ed. Maurer.....*7,000

APRIL 22.—By the *Grecian*=Bahia:
J. H. Rossbach & Bros.....25,000
A. Hirsch & Co.....5,000 30,000

APRIL 22.—By the *Proteus*=New Orleans:
Manhattan Rubber Co.....2,500
Eggers & Heinlein.....2,000 4,500

APRIL 23.—By the *Esperanza*=Mexico:
Harburger & Stack.....11,500
E. Steiger & Co.....6,500
Streebe & Ultze.....3,000
E. N. Tibbals & Co.....2,500
Rubber Trading Co.....2,000
American Trading Co.....3,000
H. Marquardt & Co.....2,500
A. Dumont & Co.....2,000
International Products Co.....2,500
Mecke & Co.....1,000
General Export Co.....1,000 37,500

APRIL 23.—By the *Sigismund*=Colombia:
A. Held.....5,000
Kunhardt & Co.....3,500
Caballero & Blanco.....1,000 9,500

APRIL 25.—By the *Amerika*=Hamburg:
A. T. Morse & Co.....*20,000
Ed. Maurer.....*20,000 *40,000

APRIL 25.—By the *Advance*=Colon:
Isaac Brandon & Bros.....9,000
G. Amsinck & Co.....3,500
Herbst Brothers.....3,000
Andean Trading Co.....2,000
Piza, Nephews & Co.....2,000
Lawrence Johnson & Co.....1,000
H. Mann & Co.....1,000 21,500

APRIL 25.—By the *Comus*=New Orleans:
Robinson & Co.....3,000
Eggers & Heinlein.....2,000
New York Commercial Co.....1,500 6,500

APRIL 25.—By the *Cedric*=Liverpool:
Poel & Arnold.....*11,000

APRIL 25.—By the *Bayamo*=Tampico:
Continental-Mexican Rubber Co.....*200,000
New York Commercial Co.....*100,000
Ed. Maurer.....*60,000
Poel & Arnold.....*30,000 *390,000

APRIL 26.—By the *Siberia*=Greytown:
G. Amsinck & Co.....4,000
Isaac Brandon & Bros.....2,000
Wessels Kulenkampf & Co.....1,500
Suzarte & Whitney.....1,500
A. Santos & Co.....1,000
Jose Julia & Co.....1,000
Alexander Latham & Co.....1,000 12,000

APRIL 26.—By the *Kroonland*=Antwerp:
Poel & Arnold.....*11,000

APRIL 28.—By the *Atrato*=Colombia:
Maitland, Coppell & Co.....3,000
R. del Castillo & Co.....2,500
Suzarte & Whitney.....1,000 6,500

APRIL 29.—By the *Mexico*=Vera Cruz:
H. Marquardt & Co.....4,000
Mecke & Co.....1,000
J. W. Wilson & Co.....1,000
In Transit.....7,000 13,000

APRIL 30.—By the *El Mar*=New Orleans:
A. T. Morse & Co.....7,000
Manhattan Rubber Co.....2,000
Eggers & Heinlein.....1,500
A. Klipstein & Co.....1,000 11,500

APRIL 30.—By the *Panama*=Colon:
General Rubber Co.....9,000
G. Amsinck & Co.....6,000
J. Sambrada & Co.....4,000
Isaac Brandon & Bros.....4,000
Dumarest & Bros.....1,500
Andean Trading Co.....1,500
Mecke & Co.....1,000
Fidanque Bros. & Co.....1,000 28,000

MAY 2.—By the *Alai*=Colombia:
J. H. Rossbach & Bros.....11,000
Maitland, Coppell & Co.....5,000
R. del Castillo & Co.....5,000
Isaac Brandon & Bros.....3,000
G. Amsinck & Co.....1,500
A. Held.....1,500 27,000

MAY 2.—By the *Jasea*=Honduras:
A. Rosenthal & Sons.....5,500

MAY 2.—By the *Arabic*=Liverpool:
Rubber Import Co.....11,500

MAY 2.—By the *Antilles*=New Orleans:

A. T. Morse & Co.....3,500
Manhattan Rubber Co.....2,000
Robinson & Co.....1,500
E. N. Tibbals & Co.....1,500 13,500

MAY 3.—By the *Vigilancia*=Tampico:

Continental-Mexican Rubber Co.....*150,000
Ed. Maurer.....*105,000
New York Commercial Co.....*67,000
Poel & Arnold.....*20,000
E. S. Churchill.....*11,500 *353,500

MAY 4.—By the *Prins Willem*=Colon:

A. Santos & Co.....3,000
G. Amsinck & Co.....3,000
Pablo Calvet & Co.....1,500
J. Lambrada & Co.....1,500
Graham, Hinkley & Co.....1,500
Isaac Brandon & Bros.....1,000
Wessels, Kulenkampf & Co.....1,000 12,500

MAY 5.—By the *Vasari*=Bahia:

Poel & Arnold.....35,000
J. H. Rossbach & Bros.....16,000
A. Hirsch & Co.....5,500 56,500

MAY 5.—By the *Monus*=New Orleans:

T. N. Morgan Co.....1,500
Eggers & Heinlein.....1,500
Manhattan Rubber Co.....1,500
New York Commercial Co.....1,500 6,000

MAY 6.—By the *Alliance*=Colon:

G. Amsinck & Co.....10,500
Mecke & Co.....4,000
Wessels, Kulenkampf & Co.....2,500
Piza, Nephews & Co.....2,500
A. T. Morse & Co.....1,500
Gillespie Bros. & Co.....1,500
Isaac Brandon & Bros.....1,000 22,500

MAY 6.—By the *Rio de Janeiro*=Bahia:

J. R. Rossbach & Bros.....25,000

MAY 6.—By the *El Dorado*=Galveston:

Continental-Mexican Rubber Co.....*75,000
C. T. Wilson & Co.....*20,000 *95,000

MAY 7.—By the *Morro Castle*=Mexico:

H. Marquardt & Co.....7,000
E. N. Tibbals & Co.....5,000
Harburger & Stack.....3,500
E. Steiger & Co.....3,500
International Products Co.....2,500
A. Dumont & Co.....2,500
General Export Co.....1,000 25,000

MAY 9.—By the *Matanzas*=Tampico:

Continental-Mexican Rubber Co.....*200,000
Ed. Maurer.....*125,000
New York Commercial Co.....*67,000
Poel & Arnold.....*20,000 *412,000

MAY 10.—By the *Sarnia*=Colon:

Manhattan Rubber Co.....2,000
Isaac Brandon & Bros.....1,500
Delima Cortissoz & Co.....1,000
Suzarte & Whitney.....1,000
Isaac Kubie & Co.....1,000 6,500

MAY 10.—By the *El Alba*=Galveston:

Continental-Mexican Rubber Co.....*75,000
C. T. Wilson.....*45,000
E. S. Churchill.....*5,000 *125,000

MAY 11.—By the *Tagus*=Colombia:

A. M. Capen's Sons.....5,000
Pablo Calvet & Co.....1,000
J. Sambrada & Co.....1,000 7,000

MAY 12.—By the *Colon*=Colon:

Isaac Brandon & Bros.....10,000
G. Amsinck & Co.....9,000
Herbst Brothers.....3,500
Mecke & Co.....3,500
American Trading Co.....2,000
Piza, Nephews & Co.....2,000
Andean Trading Co.....1,500
Lawrence Johnson & Co.....1,500
A. T. Morse & Co.....1,500
International Products Co.....1,000 35,500

MAY 12.—By the *Black Prince*=Bahia:

J. H. Rossbach & Bros.....22,500
New York Commercial Co.....22,500
Poel & Arnold.....15,000 60,000

MAY 13.—By the *El Sigle*=Galveston:

Continental-Mexican Rubber Co.....*77,000

MAY 13.—By the *Comus*=New Orleans:

Robinson & Co.....5,000
Manhattan Rubber Co.....3,000
A. N. Rotholz.....2,500
A. T. Morse & Co.....2,000
New York Commercial Co.....1,500
Eggers & Heinlein.....1,000 15,000

MAY 14.—By the *Castilian*=Bahia:

J. H. Rossbach & Bros.....30,000
Poel & Arnold.....5,000 35,000

MAY 14.—By the *Merida*=Mexico:

H. Marquardt & Co.....7,500
Harburger & Stack.....6,000

J. W. Wilson & Co.....3,500
E. N. Tibbals & Co.....2,500
International Products Co.....2,500
Mecke & Co.....1,500
American Trading Co.....1,500
General Export Co.....1,000 26,000

MAY 16.—By the *Minneapolis*=London:

Raw Products Co.....7,000

MAY 16.—By the *Seguranca*=Tampico:

Continental-Mexican Rubber Co.....*150,000
Ed. Maurer.....*120,000
Poel & Arnold.....*40,000
New York Commercial Co.....*33,000
R. M. Beaver Co.....*10,000 *333,000

MAY 17.—By the *Antilles*=New Orleans:

Manhattan Rubber Co.....3,000
Eggers & Heinlein.....2,500
A. N. Rotholz.....2,000
A. T. Morse & Co.....1,500
Robinson & Co.....1,000 10,000

MAY 17.—By the *Joachim*=Colon:

G. Amsinck & Co.....5,000
A. Santos & Co.....2,500
Mecke & Co.....1,500
A. Held.....1,500
Isaac Brandon & Bros.....1,000
Frank Lapidra.....1,000
Delima, Cortissoz & Co.....1,000 13,500

MAY 21.—By the *Esperanza*=Mexico:

H. Marquardt & Co.....9,000
Mecke & Co.....2,000
International Products Co.....2,000
E. N. Tibbals & Co.....1,500
George A. Alden & Co.....1,000 15,500

MAY 21.—By the *Advance*=Colon:

G. Amsinck & Co.....8,000
Pablo, Calvet & Co.....1,000 9,000

MAY 21.—By the *Tennyson*=Bahia:

J. H. Rossbach & Bros.....50,000
A. Hirsch & Co.....33,000 83,000

MAY 23.—By the *Sigismund*=Colombia:

J. H. Rossbach & Bros.....11,000
Delima, Cortissoz & Co.....1,500
Caballero & Blanco.....1,500
G. Amsinck & Co.....1,500
Stanley Jordan & Co.....1,500
Isaac Brandon & Bros.....1,000 18,000

MAY 24.—By the *Bayamo*=Tampico:

Continental-Mexican Rubber Co.....*150,000
Ed. Maurer.....*135,000
New York Commercial Co.....*67,000
Poel & Arnold.....*33,000 *385,000

MAY 24.—By the *Panama*=Colon:

G. Amsinck & Co.....11,000
Piza, Nephew & Co.....7,500
J. Sambrada & Co.....8,000
Isaac Brandon & Bros.....6,000
Lawrence Johnson & Co.....5,000
General Rubber Co.....5,000
Mecke & Co.....2,000
Suzarte & Whitney.....1,500
Wessels, Kulenkampf & Co.....1,500
A. Rosenthal & Sons.....1,000
Demarest Bros. & Co.....1,000 49,500

AFRICAN.

POUNDS.

Rubber Trading Co.....13,500
Livesey & Co.....5,500
Poel & Arnold.....5,000 24,000

APRIL 21.—By the *President Grant*=Hamburg:

George A. Alden & Co.....22,000
Poel & Arnold.....15,000
W. L. Gough Co.....11,500
A. T. Morse & Co.....10,000
Livesey & Co.....13,500 72,000

APRIL 25.—By the *Cedric*=Liverpool:

George A. Alden & Co.....47,000
Robinson & Co.....25,000
H. A. Gould Co.....11,500
Livesey & Co.....4,500
General Rubber Co.....2,500 90,500

APRIL 25.—By the *Amerika*=Hamburg:

George A. Alden & Co.....20,000

APRIL 28.—By the *Adriatic*=London:

Poel & Arnold.....15,000
George A. Alden & Co.....10,000 25,000

APRIL 26.—By the *Kroonland*=Antwerp:

W. H. Stiles.....15,000
Robinson & Co.....15,000
W. L. Gough Co.....11,500 41,500

MAY 2.—By the *Carmania*=Liverpool:

George A. Alden & Co.....40,000
Raw Products Co.....9,000
H. A. Gould Co.....5,500
A. T. Morse & Co.....3,500 58,000

RUBBER FLUX

No. 17. Particularly adapted to softening material for tubing machine. Almost universally used for waterproofing wire.

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CHARLES T. WILSON

SALES AGENT

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NEW YORK

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(I invite inquiries from Manufacturers respecting the various grades of rubber I market)

MAY 2.—By the <i>Arabic</i> =Liverpool:			APRIL 23.—By the <i>Campania</i> =Liverpool:			MAY 5.—By the <i>Muncaster Castle</i> =Singapore:			
Poel & Arnold.....	44,500	58,000	A. T. Morse & Co.....	*15,000	15,000	George A. Alden & Co.....	155,000	109,000 2,305,000	
Livesey & Co.....	13,500		George A. Alden & Co.....	*15,000		L. Littlejohn & Co.....	700,000		
MAY 5.—By the <i>Pennsylvania</i> =Hamburg:			APRIL 25.—By the <i>Amerika</i> =Hamburg:			Heabler & Co.....	650,000		
George A. Alden & Co.....	30,000	88,000	APRIL 25.—By the <i>St. Paul</i> =London:			Poel & Arnold.....	250,000		
A. T. Morse & Co.....	45,000		New York Commercial Co.....	*11,500	*46,500	W. L. Gough Co.....	450,000		
W. L. Gough Co.....	9,000	Poel & Arnold.....	*35,000	Robinson & Co.....		100,000 2,305,000			
Raw Products Co.....	2,000	APRIL 27.—By the <i>Pathan</i> =Singapore:				MAY 9.—By the <i>Welsh Prince</i> =Singapore:			
Poel & Arnold.....	2,000	17,000	W. L. Gough Co.....	13,500	22,500	Heabler & Co.....	750,000		
MAY 6.—By the <i>Carolina</i> =Havre:			Otto Isenstein & Co.....	5,500		L. Littlejohn & Co.....	700,000		
A. T. Morse & Co.....	11,500	15,000	Daniel A. Shaw & Co.....	3,500	*25,000	W. L. Gough & Co.....	350,000		
MAY 9.—By the <i>Baltic</i> =Liverpool:			APRIL 28.—By the <i>Adriatic</i> =London:			George A. Alden & Co.....	450,000		
Poel & Arnold.....	11,500	26,000	Poel & Arnold.....	*50,000	*72,500	Robinson & Co.....	150,000		
General Rubber Co.....	5,500		New York Commercial Co.....	*22,500	*40,000	Poel & Arnold.....	250,000 2,650,000		
MAY 9.—By the <i>Richmond</i> =Lisbon:			MAY 2.—By the <i>Rabenfels</i> =Colombo:			GUTTA-PERCHA.			
W. L. Gough Co.....	15,000	26,000	New York Commercial Co.....	*25,000	*40,000	POUNDS			
MAY 10.—By the <i>Vaderland</i> =Antwerp:			A. T. Morse & Co.....	*15,000		APRIL 21.—By the <i>President Grant</i> =Hamburg:	E. Oppenheim.....		9,000
A. T. Morse & Co.....	16,000	40,200	MAY 3.—By the <i>Philadelphia</i> =London:			APRIL 25.—By the <i>Cedric</i> =Liverpool:			
H. A. Gould Co.....	10,000		Poel & Arnold.....	*8,000	*26,000	George A. Alden & Co.....	22,500	11,000	
MAY 11.—By the <i>Istria</i> =Hamburg:			MAY 5.—By the <i>Muncaster Castle</i> =Singapore:			MAY 5.—By the <i>Muncaster Castle</i> =Singapore:			
George A. Alden & Co.....	11,000	75,500	George A. Alden & Co.....	15,000	*26,000	George A. Alden & Co.....	11,000	33,000	
A. T. Morse & Co.....	11,500		Malaysian Rubber Co.....	35,000		MAY 12.—By the <i>Graf Waldersee</i> =Hamburg:			
Rubber Trading Co.....	9,000	59,000	Poel & Arnold.....	9,000	*26,000	E. Oppenheim.....	33,000	BALATA.	
Robert Badenhop.....	8,700		MAY 9.—By the <i>Redhall</i> =Colombo:			APRIL 26.—By the <i>Marowijne</i> =Trinidad:			
MAY 11.—By the <i>Oceanic</i> =London:			New York Commercial Co.....	*22,500	*26,000	Middleton & Co.....	5,000	5,000	
Poel & Arnold.....	33,500	75,500	A. T. Morse & Co.....	*3,500		MAY 3.—By the <i>Coppename</i> =Demerara:			
George A. Alden & Co.....	20,000		MAY 9.—By the <i>Welsh Prince</i> =Singapore:		*30,000	Ed. Maurer.....	2,500	2,500	
Livesey & Co.....	15,000	158,000	Heabler & Co.....	30,000		MAY 9.—By the <i>Saramac</i> =Demerara:			
Robinson & Co.....	7,000		George A. Alden & Co.....	20,000	70,000	Ed. Maurer.....	2,500	1,000	
MAY 12.—By the <i>Graf Waldersee</i> =Hamburg:			Malaysian Rubber Co.....	10,000	70,000	B. Williamson & Co.....	1,000		
Poel & Arnold.....	7,000	158,000	W. L. Gough Co.....	10,000		De Sola Lobo & Co.....	1,000	4,500	
MAY 14.—By the <i>Augusta Victoria</i> =Hamburg:			MAY 10.—By the <i>Minnewaska</i> =London:		*30,000	MAY 14.—By the <i>Kais. Aug. Victoria</i> =Hamburg:			
George A. Alden & Co.....	70,000	78,000	A. T. Morse & Co.....	*11,000		Schulz & Ruckgaber.....	3,500	3,500	
Poel & Arnold.....	55,000		General Rubber Co.....	*10,000	*30,000	MAY 17.—By the <i>Suriname</i> =Trinidad:			
A. T. Morse & Co.....	33,000	78,000	Robinson & Co.....	*9,000		J. A. Pauli & Co.....	3,000	4,500	
MAY 16.—By the <i>Celtic</i> =Liverpool:			MAY 11.—By the <i>Oceanic</i> =London:		*30,000	Middleton & Co.....	1,500		
George A. Alden & Co.....	45,000	78,000	Poel & Arnold.....	*30,000		MAY 20.—By the <i>Pinna</i> =Demerara:			
Robinson & Co.....	22,500	78,000	MAY 12.—By the <i>Graf Waldersee</i> =Hamburg:		*27,000	Middleton & Co.....	2,000	2,000	
H. A. Gould Co.....	5,500		George A. Alden & Co.....	30,000		MAY 23.—By the <i>Marowijne</i> =Trinidad:			
Poel & Arnold.....	5,500	23,900	MAY 16.—By the <i>New York</i> =London:		*27,000	Ed. Maurer.....	2,000	CUSTOM HOUSE STATISTICS.	
MAY 18.—By the <i>Bluecher</i> =Hamburg:			Poel & Arnold.....	5,000		PORT OF NEW YORK—APRIL.			
Poel & Arnold.....	7,000	8,000	MAY 17.—By the <i>Minneapolis</i> =London:		*10,500	Imports.	Pounds.	Value.	
George A. Alden & Co.....	7,000		Robinson & Co.....	*7,000	*12,500	India-rubber.....	6,164,573	\$6,885,194	
Schulz & Ruckgaber.....	8,000	23,900	A. T. Morse & Co.....	*3,500		Balata.....	24,841	12,203	
Robert Badenhop.....	1,900		MAY 19.—By the <i>Majestic</i> =London:		*12,500	Gutta-percha.....	54,432	14,514	
MAY 21.—By the <i>Campania</i> =Liverpool:			New York Commercial Co.....	*9,000	*35,000	Gutta-jelutong (Pontianak).....	1,911,953	7,012,990	
Livesey & Co.....	4,500	8,000	Poel & Arnold.....	*3,500		Total.....	8,155,799	\$7,012,990	
Poel & Arnold.....	3,500		MAY 19.—By the <i>Mariefels</i> =Colombo:		*35,000	Exports.	Pounds.	Value.	
MAY 23.—By the <i>St. Paul</i> =London:			New York Commercial Co.....	*20,000	*35,000	India-rubber.....	1,081,520	\$1,894,222	
Livesey & Co.....	11,500	20,500	A. T. Morse & Co.....	*15,000	*35,000	Balata.....	3,218	2,897	
George A. Alden & Co.....	9,000		MAY 19.—By the <i>Deutschland</i> =Hamburg:		*35,000	Gutta-percha.....	1,905	1,393	
MAY 23.—By the <i>Chicago</i> =Havre:			George A. Alden & Co.....	17,000		Reclaimed rubber.....	19,320	2,079	
A. T. Morse & Co.....	13,500	22,500	GUTTA-JELUTONG.		*35,000	Rubber scrap, imported....	1,064,226	\$102,627	
MAY 23.—By the <i>Cedric</i> =Liverpool:			APRIL 27.—By the <i>Pathan</i> =Singapore:		*35,000	BOSTON ARRIVALS.			
General Rubber Co.....	15,000	18,500	APRIL 27.—By the <i>Pathan</i> =Singapore:		755,000	POUNDS			
Robinson & Co.....	3,500		L. Littlejohn & Co.....	21,000		APRIL 12.—By the <i>Kenebec</i> =Singapore:	L. Littlejohn & Co. (Jelutong).....		210,000
MAY 23.—By the <i>Minnetonka</i> =London:			Heabler & Co.....	225,000		*35,000	George A. Alden & Co. (Jelutong).....	75,000	
Poel & Arnold.....	22,500		Poel & Arnold.....	100,000			Poel & Arnold (Jelutong).....	75,000	
EAST INDIAN.			George A. Alden & Co.....	125,000		755,000	State Rubber Co. (Jelutong).....	100,000	460,000
[*Denotes plantation rubber.]			W. L. Gough Co.....	90,000					
APRIL 21.—By the <i>Majestic</i> =London:			POUNDS.						
Poel & Arnold.....	*55,000	*90,000							
New York Commercial Co.....	*35,000								

PARA EXPORTS OF INDIA-RUBBER, MARCH, 1910 (In KILOGRAMS).

NEW YORK.					EUROPE.				
EXPORTERS.	Fine.	Medium.	Coarse.	Cauch.	TOTAL.	Fine.	Medium.	Coarse.	TOTAL.
Gruner & Co.....	101,657	20,191	40,706	41,964	204,518	113,031	30,479	53,152	196,662
E. Pinto Alves & Co.....	19,040	2,380	72,370	.....	93,790	126,443	17,876	55,961	200,280
R. Suarez & Co.....	.....	.....	.....	.....	.....	254,578	8,028	34,754	297,360
Y. Carques & Co.....	5,270	.....	9,900	.....	15,170	185,849	25,091	64,955	275,895
Adelbert H. Alden, Ltd.....	28,555	5,913	35,492	1,980	71,940	21,127	6,753	55,235	83,115
Alves Braga Rubber Estates	.....	.....	.....	.....	.....	109,820	21,080	9,690	140,590
Scholz, Hartje & Co.....	510	1,020	16,097	1,320	18,947	41,224	8,602	8,894	58,720
R. O. Ahlers & Co.....	.....	.....	.....	.....	.....	63,047	.....	7,509	70,556
Gordon & Co.....	29,769	3,647	1,113	.....	34,529	9,800	1,981	10,872	22,653
Guilherme Augusto de Miranda	.....	.....	.....	.....	.....	.....	.....	.....	.....
Filho & Co.....	9,280	4,960	11,580	.....	25,820	3,840	800	10,440	15,080
Pires Teixeira & Co.....	4,930	.....	14,520	.....	19,450	8,330	.....	10,230	18,560
De Lagotellerie & Co.....	1,020	.....	990	.....	2,010	.....	.....	.....	2,010
Sundries.....	.....	.....	.....	.....	.....	1,530	170	15,680	17,380
Itacotiara direct.....	.....	.....	.....	.....	.....	3,018	298	1,656	5,125
Mangos direct.....	416,946	79,292	125,749	165,508	787,495	680,476	115,374	187,755	1,043,605
Inquitos direct.....	.....	.....	.....	.....	.....	14,109	1,907	18,542	34,558
Total, March.....	616,977	117,403	328,517	210,772	1,273,669	1,636,222	238,439	538,807	2,413,468
Total, February.....	1,249,571	259,296	762,781	318,830	2,590,478	1,274,751	155,070	470,983	1,900,804
Total, January.....	1,540,151	325,343	831,917	400,144	3,097,555	1,119,634	91,349	340,073	1,551,056



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JUNE 1, 1910.

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Antwerp.

RUBBER STATISTICS FOR APRIL.

DETAILS.	1910.	1909.	1908.	1907.	1906.
Stocks, March 31.....kilos	499,102	595,855	1,336,892	725,538	641,650
Arrivals in April.....	499,870	330,277	211,549	304,673	392,199
Congo sorts.....	340,456	219,645	175,000	229,927	298,733
Other sorts.....	89,414	110,632	36,549	74,946	93,466
Aggregating.....	928,972	926,132	1,348,441	1,030,411	1,033,849
Sales in April.....	458,504	318,345	630,528	568,838	153,391
Stocks, April 30.....	470,468	607,787	717,913	461,573	880,458
Arrivals since Jan. 1.....	1,469,549	1,458,369	1,729,358	1,637,631	2,071,689
Congo sorts.....	1,171,286	1,001,032	1,522,423	1,381,092	1,573,515
Other sorts.....	298,263	457,337	206,935	256,539	498,174
Sales since Jan. 1.....	1,340,593	1,446,317	2,018,339	1,834,242	1,926,418

THE death of M. Louis Van de Velde, senior partner of L. & W. Van de Velde, rubber and produce merchants, occurred on April 13, at Stresa, Italy.

Plantation Rubber from the Far East.

EXPORTS of Ceylon grown rubber from January 1 to April 25, in 1909 and 1910. From the Ceylon Chamber of Commerce Price Current.

To—	1909.	1910.
United Kingdom.....pounds	202,076	369,026
United States.....	71,879	352,122
Canada.....		1,911
Belgium.....	6,629	10,593
Germany.....	7,387	6,833
Italy.....		452
Australia.....	5,968	
France.....	1,639	
Total.....	296,068	740,397

For same period in 1908—208,327 pounds; same period in 1907—146,422.

EXPORTS from the Malay peninsula from January 1 to the dates mentioned, in 1909 and 1910:

	1909.	1910.
Singapore—to March 31.....pounds	574,490	780,912
Penang—to March 16.....	653,107	401,201
Port Swettenham—to March 18.....		1,611,184
Total.....	1,227,597	2,793,297

EXPORTS during the first two months of this year of rubber produced in the Federated Malay States amounted to 1,497,201 pounds, against 790,183 pounds for the same period in 1909. These figures are included in the preceding paragraph.

United States Imports of Crude Rubber.

OFFICIAL customs figures for nine months ending March 31:

FROM—	1908.	1909.	1910.
United Kingdom.....pounds	3,323,460	9,438,904	13,041,217
Germany.....	1,866,410	3,316,123	4,767,736
Other Europe.....	4,418,673	5,552,634	8,614,773
Central America and British Honduras.....	786,704	591,280	991,468
Mexico.....	6,326,624	10,985,844	16,905,054
Brazil.....	23,178,885	33,980,709	36,240,532
Other South America.....	1,284,180	1,435,536	1,816,434
East Indies.....	979,995	819,517	1,584,453
Other Countries.....	36,446	23,442	12,243
Total.....	42,201,377	66,743,989	83,373,910
Value.....	\$25,070,172	\$45,128,757	\$82,985,074
Average per pound.....	61.5 cents.	68.2 cents.	99.5 cents.

EXPORTS.....	2,971,340	2,622,588	4,305,860
Net Imports.....	39,230,037	63,521,401	79,068,050

Liverpool.

WILLIAM WRIGHT & Co. report [May 2]:

Fine Para.—During the early part of the month the market was firm and advancing, up to 12s. 6½d. [= \$2.93] paid for distant delivery; within the past few days a reaction has set in, prices declined to 11s. 8d., rose to 11s. 10d., and then reacted to 11s. 4d. to 11s. 5d., at which it seems steady. The reaction has been mainly caused by second hand sellers; once their commitments are liquidated, a further advance in values is probable. News from Brazil continues extremely firm. Closing values: Upriver 11s. 5½d. [= \$2.79]; Islands 11s. 4d. [= \$2.76].

INDIA RUBBER GOODS IN COMMERCE.

EXPORTS FROM THE UNITED STATES.

OFFICIAL statement of values of exports of manufacturers of india-rubber and gutta-percha for the month of March, 1910, and of the first nine months of three fiscal years, beginning July 1:

MONTHS.	Belting, Packing and Hose.	Boots and Shoes.	All Other Rubber.	TOTAL.
March, 1910.....	\$182,745	\$62,518	\$456,865	\$702,128
July-February.....	\$1,233,910	\$1,437,252	\$3,053,753	\$5,724,915
Total, 1909-10.....	\$1,416,655	\$1,499,770	\$3,510,618	\$6,427,043
Total, 1908-09.....	1,053,758	1,071,489	2,805,914	4,931,161
Total, 1907-08.....	1,040,985	1,342,965	2,802,371	5,186,321

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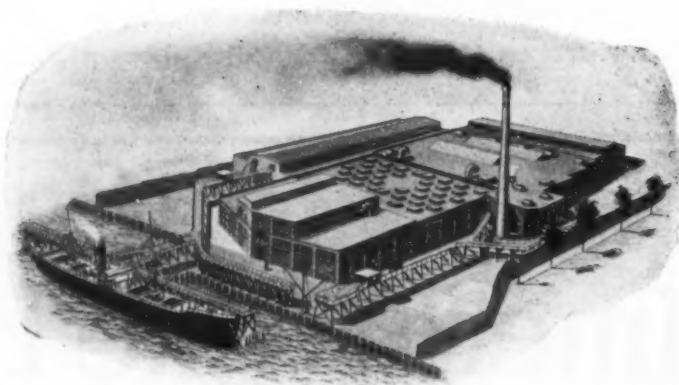
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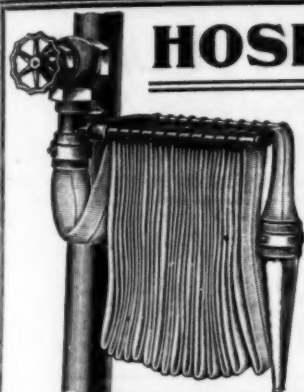
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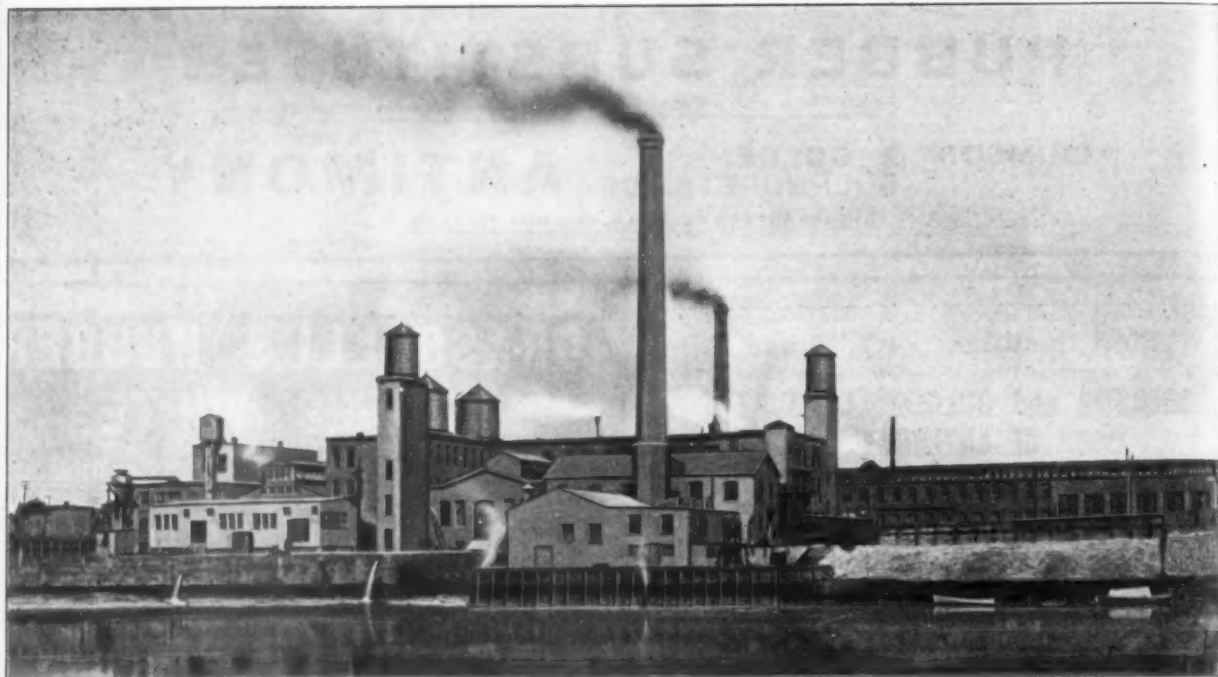
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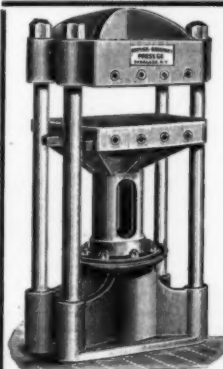
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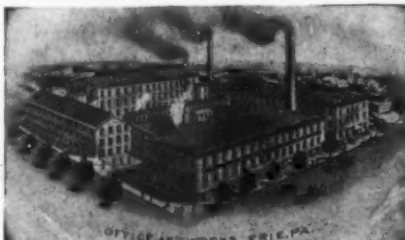
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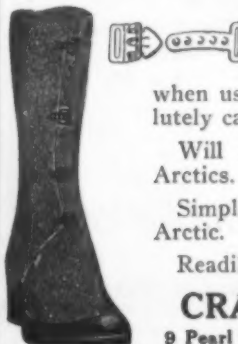
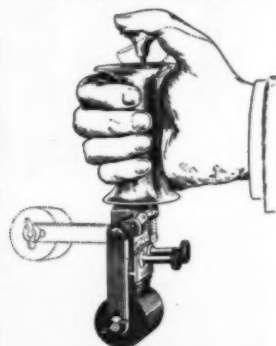
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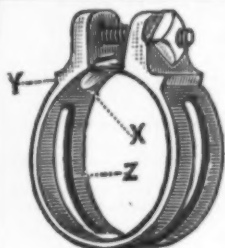
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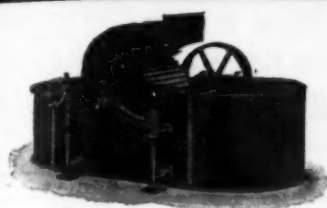
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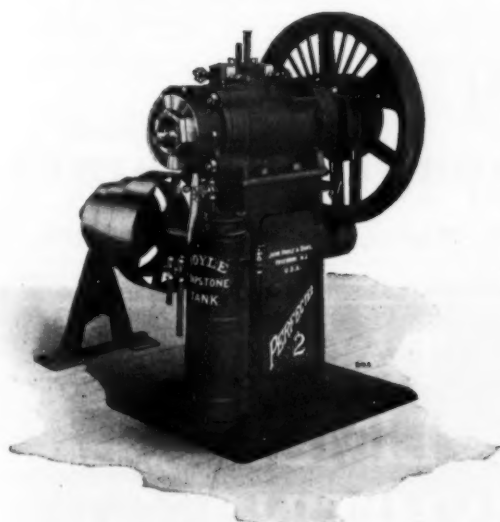
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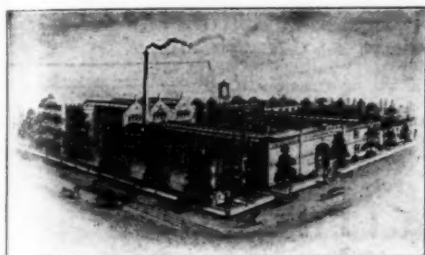
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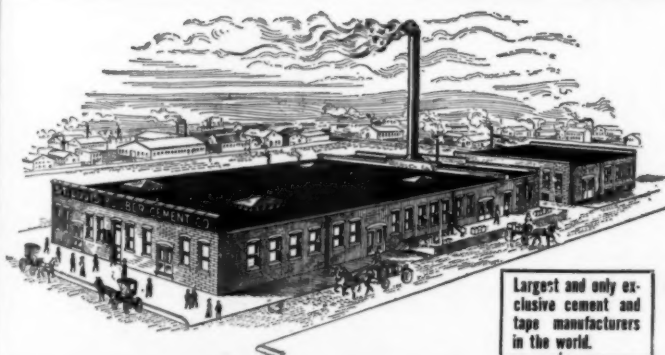
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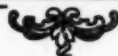
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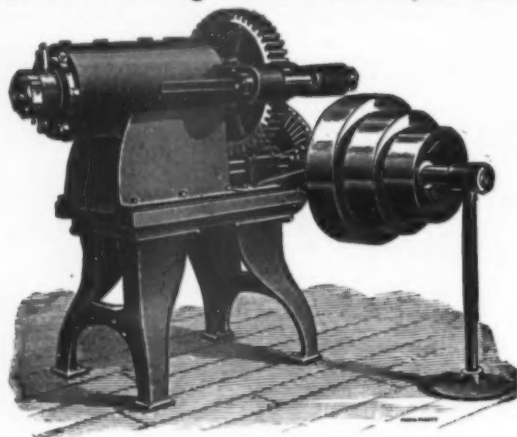
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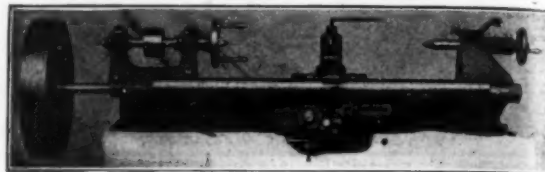


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The Publishers' Page

Rubber in the News.

NO era in the history of the rubber interest has been so prolific of news of importance and general interest as the present. Rubber, when it came into commercial use, was a material having qualities so unusual that its utilization appealed to the popular mind as one of the wonders of the world. But stranger things in relation to rubber are being developed all the while, and these make the basis for news of such a special journal as THE INDIA RUBBER WORLD.

What High Prices Do.

THE fact that crude rubber has actually sold within the year at \$3 per pound or more is in itself an item of news which even the daily papers have treated at length, but the news of more real importance is what the leaders in the industry are doing to adjust it to the new price conditions. Inventors and chemists and factory superintendents have been obliged to work more economically, involving better systems and the use of improved apparatus, in order that the business may be carried on at a profit regardless of the cost of raw materials. This is one sort of news which THE INDIA RUBBER WORLD gives special prominence to.

Still the Trade is Prosperous.

IN the present issue details are given regarding the business of large manufacturing companies in different countries, in which connection the point of chief interest is that, while the cost of crude rubber has never been so high, larger profits have been realized than at any time in the past. It is not alone of interest to report such facts, but to study the conditions under which these returns are possible. Nowadays no one industrial establishment is sufficient to itself, and the relation of one concern to another or the industry as a whole must necessarily be studied. In this work the trade journal more than at any time in the past has an opportunity to serve its readers as a clearing house, so to speak, of information and ideas for the benefit of the whole trade.

The Great Planting Interest.

ONE of the most striking facts of the whole rubber interest, from the beginning to the present, is the successful development of rubber planting. Even two or three years ago such results in this field as are now being realized would have been regarded as incredible, but today people who are informed are prepared to hear of even larger rates of profit. It is of interest to know that a single plantation company has paid dividends for the past year at the rate of 287½ per cent. Not only has this rate been paid, but the business of the company has been done on a large scale. The company's actual net proceeds from rubber for a year were upwards of \$520,000. Considering that the company is capitalized at less than \$150,000, it will be seen how the large dividend was possible.

Forest Rubber Still a Necessity.

IMPORTANT as has been the development of the rubber planting interest, there is still a scarcity of rubber—at least the supply has not increased as rapidly as the demand is growing. The condition makes necessary not only the opening of rubber plantations, but increased attention to the trade in forest rubber, and this field likewise affords much news of value, to the supplying of which THE INDIA RUBBER WORLD is devoting special energy. Attention is called to the series of letters from the Amazon valley by the Editor. This series of letters will be continued for some time to come, and will be supplemented by the latest intelligence from other authentic sources regarding forest rubber, not only in the Amazon country but wherever else such material is produced on an important scale.

Our Books on Rubber.

NOT only is THE INDIA RUBBER WORLD the repository of such a variety of information on rubber subjects of interest but the publishers issue several books bearing upon branches of the rubber interest, and to these the attention is called of whoever is interested in authentic information of a practical character and up to date regarding any rubber interest.

CRUDE RUBBER AND COMPOUNDING INGREDIENTS

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By HENRY C. PEARSON,

Editor of The India Rubber World

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[With Condensed Titles of Chapters.]

- I.—Grades of Crude Rubber; Physical Characteristics.
- II.—Some Little Known Rubbers and Pseudo Gums.
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- IV.—Vulcanizing Ingredients and Processes.
- V.—Ingredients used in Dry Mixing in Rubber Compounds.
- VI.—Substitutes for India-rubber and Gutta-percha.
- VII.—Reclaimed Rubber and its Uses.
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- XIV.—Physical Tests and Methods of Analysis of Crude Rubber and Vulcanized Rubber.
- XV.—Gutta-percha.

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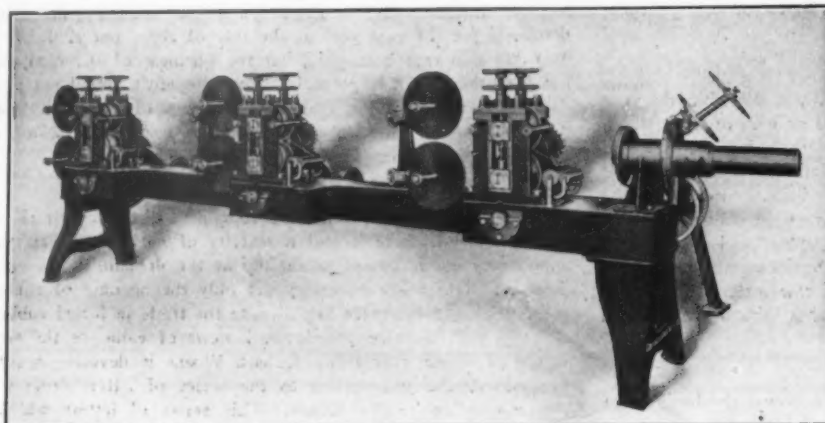


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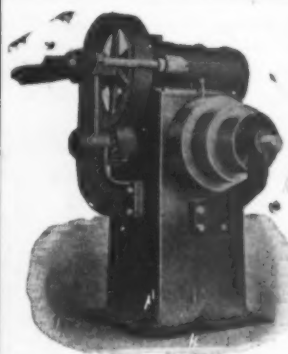
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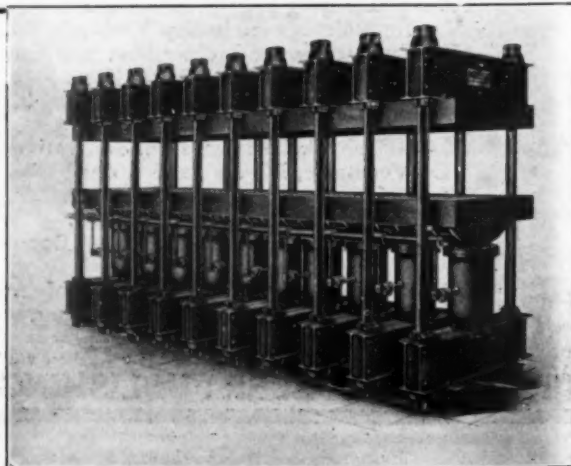


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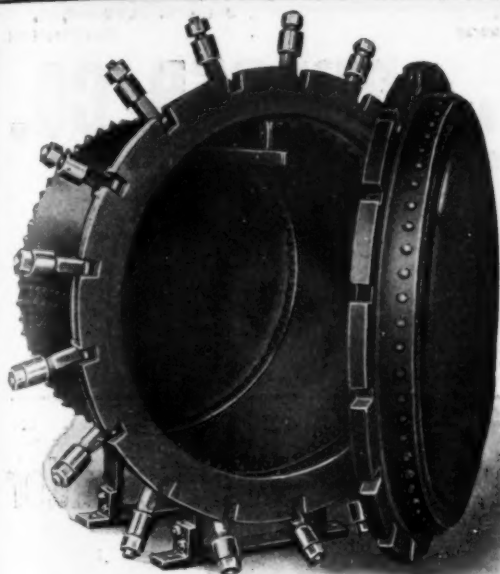
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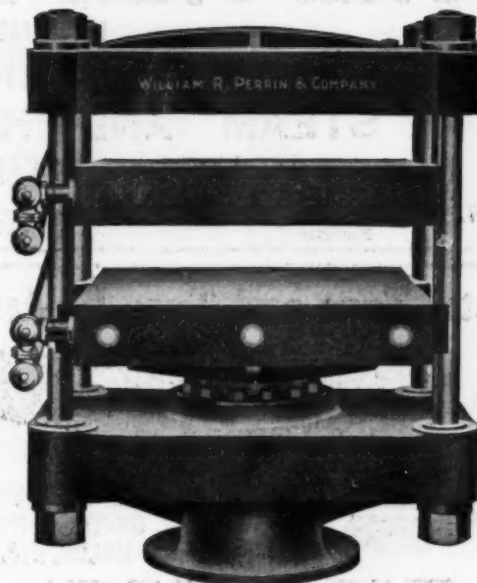
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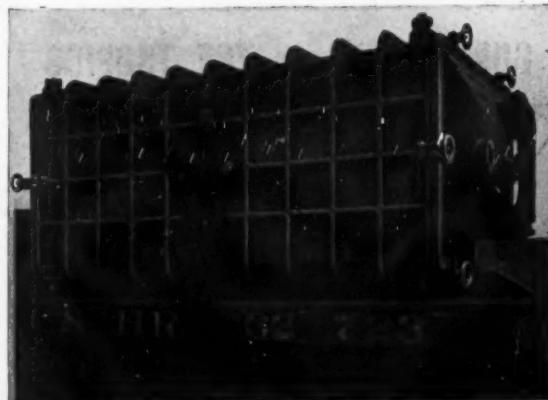
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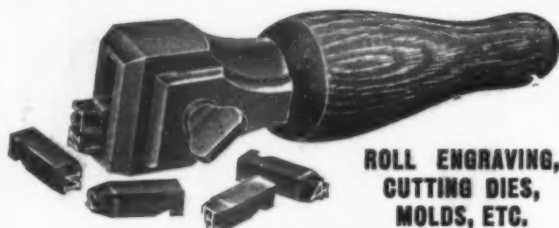
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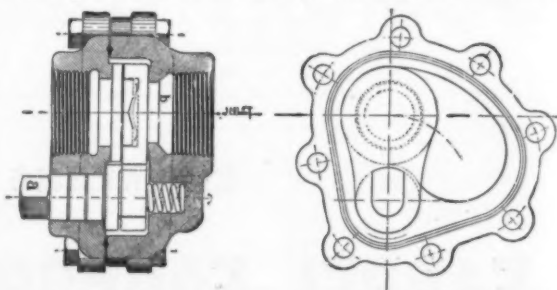
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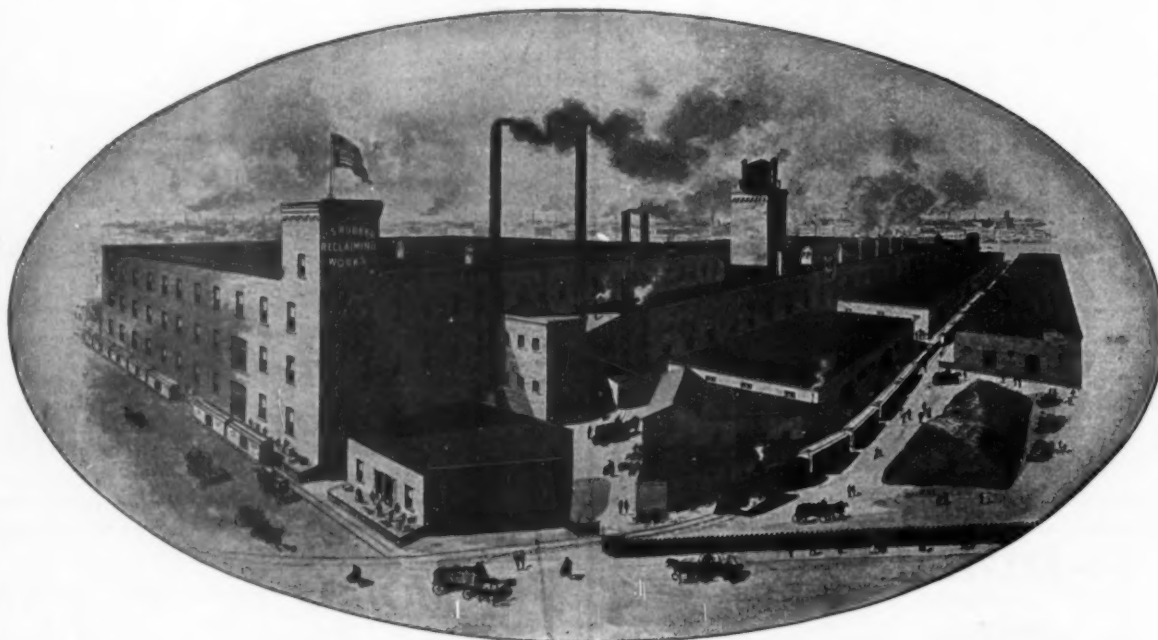
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Chicago Rubber Clothing Co.	7	India Rubber Pub. Co.	10	Perrin & Co., Wm. R.	45	Wanted and For Sale.	45
Chicago Rubber Works.	9	Indiana Rubber & Ins. Wire Co.	48	Philadelphia Rubber Works.	31	Wellman Co.	42
Churchill, E. S.	57	The	25	Picher Lead Co.	31	Wellington Sears & Co.	10
Cincinnati Rubber Mfg. Co.	40	Jenkins Bros.	36	Pirelli & Co.	14	Western Rubber Works.	39
Clapp Rubber Co., E. H.	20	"Journal d'Agriculture Tropi-	1	Plymouth Rubber Co.	49	Westmoreland Rubber Mfg. Co.	15
Clark, Eldred W.	30	cale"	35	Preston Fabric Tire Co.	42	Wetherill Co., S. P.	23
Cleveland Rubber Works.	30	K		R		White, T. & S. Co., Co.	38
Cohn, Meyer.	28	Kaufman, M.	60	Raven Mining Co. of Utah.	46	Whitehead Bros. Rubber Co.	36
Coleman Co., W. C.	32	Kerite Insulated Wire & Cable	26	Raw Products Co.	26	Whitaker, W. H.	49
Continental Rubber Co. of N. Y.	8	Co.	35	Reliable Rubber Co.	16	Williams Foundry & Machine Co.	46
Continental Rubber Works.	32	Keystone Rubber Mfg. Co.	26	Republie Rubber Co.	58	Williams & Bros., J. P.	20B
Converse Rubber Shoe Co.	32	Kibele & Co., August.	13	Revere Rubber Co.	36	Wilson, Charles T.	13
Corn Products Refining Co.	32	Kokomo Rubber Co.	10	Rosenthal, H. A.	58	Wirt & Knox Mfg. Co.	37
Crane Buckle Co.	1	Kush, Gustave.	42	Royle & Sons, John.	26	Wolpert, M. J.	51
Cravenette Co., Ltd.	37	L		Rubber Chemical Co.	21	Wood & Co., H. D.	46
Cummings & Sons, Wm. H.	39	Lane & Co., J. H.	27	Rubber Trading Co.	32	Woven Steel Hose & Rubber Co.	34
D		Le Caoutchouc & La Gutta		Rubber Products Co.		Y	
Danversport Rubber Co.	59	Percha				Verdon, William.	
Davidson Rubber Co.	49						
Davol Rubber Co., Chicago.	34						
Dermatine Co., Ltd.							
Devine, Joseph P. Co.							

MECHANICAL RUBBER GOODS.

Belting.
Diaphragms.
Gaskets.
Hose (Fire, Garden, Steam).
Mats and Matting.
Mould Work.
Packing.
Tubing.
Valves.
Washers.
Mechanical Goods Generally.

Ajax-Grieb Rubber Co., Trenton, N. J.
Atlantic Rubber Co., Hyde Park, Mass.
Boston Belting Co., Boston-New York.
Boston Woven Hose & Rubber Co.
Bowers Rubber Co., San Francisco, Cal.
Canadian Rubber Co., of Montreal.
H. O. Canfield Co., Bridgeport, Conn.
Chicago Rubber Works, Chicago.
Cincinnati Rubber Mfg. Co., Cincinnati.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
The Dermatine Co., London.
Dunlop Tire & Rubber Goods Co., Toronto.
Empire Rubber Mfg. Co., Trenton, N. J.
Essex Rubber Co., Trenton, N. J.
Eureka Fire Hose Mfg. Co., New York.
Federal Rubber Co., Milwaukee, Wis.

Mechanical Goods—General—Continued.

B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
Gutta Percha & Rubber Mfg. Co., Toronto.
Home Rubber Co., Trenton, N. J.
The Indiana Rubber and Insulated Wire Co., Jonesboro, Ind.
Keystone R. M. Co., Erie, Pa.
Manhattan Rubber Mfg. Co., New York.
Massachusetts Chemical Co., Walpole, Mass.
Mattson Rubber Co., Lodi, N. J.
Mechanical Rubber Co., New York.
Morgan & Wright, Detroit, Mich.
National India-Rubber Co., Bristol, N. I.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.
New York Rubber Co., New York.
Peerless Rubber Mfg. Co., New York.
Pirelli & Co., Milan, Italy.
Republie Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.
Schacht Rubber Mfg. Co., Huntington, Ind.
Jos. Stokes Rubber Co., Trenton, N. J.
Thermoid Rubber Co., Trenton, N. J.
Voorhees Rubber Mfg. Co., Jersey City.
Western Rubber Co., Goshen, Ind.
Woven Steel Hose & Rubber Co., Trenton, N. J.

Air Brake Hose.

Boston Belting Co., Boston-New York.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co., of Montreal.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.

Air Brake Hose—Continued.

The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
N. J. Car Spring & Rubber Co., Jersey City.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Republie Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.
Voorhees Rubber Mfg. Co., Jersey City.
Belting (Canvas).
Boston Woven Hose & Rubber Co.
Canadian Rubber Co., of Montreal.
Eureka Fire Hose Mfg. Co., New York.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Boston-New York.
Billiard Cushions.
Boston Belting Co., Boston.
Canadian Rubber Co., of Montreal.
Cincinnati E. H. Co., Cincinnati, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
New York Belting & Packing Co., Ltd.
New York Rubber Co., New York.
Revere Rubber Co., Boston-New York.

Blankets—Printers'.

Peerless Rubber Mfg. Co., New York.
Boston Belting Co., Boston.
Canadian Rubber Co., of Montreal.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
Hodgman Rubber Co., New York.

Blankets—Printers'—Continued.

Gustave Kueh, New York.
Revere Rubber Co., Boston-New York.
Voorhees Mfg. Co., Jersey City.
Brass Stair Nosing.
F. R. Howell Brass Works, Phila., Pa.
Brushes.
Boston Woven Hose & Rubber Co.
C. J. Bailey & Co., Boston.
Buffers.
Boston Belting Co., Boston-New York.
Canadian Rubber Co., of Montreal.
Cincinnati R. M. Co., Cincinnati, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Massachusetts Chemical Co., Walpole, Mass.
Mattson Rubber Co., Lodi, N. J.
National India Rubber Co., Bristol, N. I.
Revere Rubber Co., Boston-New York.
Voorhees Rub. Mfg. Co., Jersey City.
Card Cloths.
Canadian Rubber Co., of Montreal.
Mechanical Fabric Co., Providence, R. I.
Carriage Mats.
Boston Belting Co., Boston-New York.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co., of Montreal.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.

RUBBER BUYERS' DIRECTORY—Continued.

Carriage Mats.—Continued.

Home Rubber Co., Trenton, N. J.
Massachusetts Chemical Co., Walpole, Mass.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Cord (Pure Rubber).

Boston Belting Co., Boston—New York.
Boston Woven Hose & Rubber Co.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
Davol Rubber Co., Providence, R. I.
Empire Rubber Mfg. Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Deckle Straps.

Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
B. F. Goodrich Co., Chicago.
Mechanical Rubber Co., Youngstown, O.
New York Belting & Packing Co., N. Y.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Co., Jersey City.

Door Springs.

Hodgman Rubber Co., New York.

Dredging Sleeves.

Boston Belting Co., Boston—New York.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.
Cincinnati R. M. Co., Cincinnati, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Co., New York.
N. J. Car Spring & Rubber Co., Jersey City.
New York Belting & Packing Co., N. Y.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Force Cups.

Continental R. Works, Erie, Pa.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Hodgman Rubber Co., New York.
Mattson Rubber Co., Lodi, N. J.
Morgan & Wright, Detroit, Mich.
National India Rubber Co., Bristol, R. I.
Schacht Rubber Co., Huntington, Ind.

Fruit Jar Rings.

Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.
Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Empire Rubber Mfg. Co., Trenton, N. J.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.
Revere Rubber Co., Boston—New York.
New York Belting & Packing Co., N. Y.

Fuller Balls.

Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Jenkins Bros., New York.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
Morgan & Wright, Detroit, Mich.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City.

New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Boston—New York.
Rubber Products Co., Barberton, O.

Gage Glass Washers.

Boston Belting Co., Boston, Mass.
Canadian Rubber Co. of Montreal.
Cincinnati R. M. Co., Cincinnati, O.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
Empire Rubber Mfg. Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
Jenkins Bros., New York.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
Mechanical Rubber Co., Chicago, Ill.

Morgan & Wright, Detroit, Mich.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.
Revere Rubber Co., Boston, Mass.
Schacht Rubber Co., Huntington, Ind.
Jos. Stokes Rubber Co., Trenton, N. J.
Voorhees Rubber Mfg. Co., Jersey City, N. J.

Gas-Bags (Rubber).

Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Davison Rubber Co., Boston.
Davol Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Morgan & Wright, Detroit, Mich.
National India Rubber Co., Bristol, R. I.
Peerless Rubber Mfg. Co., New York.
Tyrer Rubber Co., Andover, Mass.
Voorhees Rubber Mfg. Co., Jersey City.

Gasket Tubing.

Boston Belting Co., Boston—New York.
Canadian Rubber Co. of Montreal.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Jenkins Bros., New York.
Manhattan Rubber Mfg. Co., New York.
National India Rubber Co., Bristol, R. I.
New Jersey Car Spring & Rubber Co.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Grain Drill Tubes.

Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.

Hat Bags.

Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
Mechanical Rubber Co., Chicago.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Youngstown, O.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Horse Shoe Pads.

Canadian Rubber Co. of Montreal.
Cincinnati R. M. Co., Cincinnati, O.
Continental Rubber Works, Erie, Pa.
Home Rubber Co., Trenton, N. J.
Keystone R. M. Co., Erie, Pa.
Manhattan Rubber Mfg. Co., New York.
Morgan & Wright, Detroit, Mich.
Peerless Rubber Mfg. Co., New York.
Plymouth Rubber Co., Stoughton, Mass.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Hose—Wire Wound.

Boston Belting Co., Boston—New York.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Youngstown, O.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Hose Core.

Alderfer Crute Co., Sharon Center, O.
Hose Pipes, Nozzles, Couplings and Fittings.

W. D. Allen Mfg. Co., Chicago.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.
Eureka Fire Hose Mfg. Co., New York.
F. R. Howell Brass Works, Phila., Pa.
Revere Rubber Co., Boston—New York.
A. Schrader's Son, Inc., New York.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.

Hose Linings.

Boston Belting Co., Boston—New York.
Boston Woven Hose & Rubber Co.
Empire Rubber Mfg. Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.

The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.
N. J. Car Spring & Rubber Co., Jersey City, N. J.

Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Hose Racks and Reels.

W. D. Allen Mfg. Co., Chicago.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
New York Belting & Packing Co., N. Y.
Wirt & Knox Mfg. Co., Philadelphia.

Hose—Rubber Lined.

Cotton and Linen.
Boston Belting Co., Boston—New York.
Boston Woven Hose & Rubber Co.
Gutta Percha & Rubber Mfg. Co., N. Y.
Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Empire Rubber Mfg. Co., Trenton, N. J.
Eureka Fire Hose Mfg. Co., New York.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.

Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Co., New York.
N. J. Car Spring & Rubber Co., Jersey City, N. J.

New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Youngstown, O.
Revere Rubber Co., Boston—New York.
Jos. Stokes Rubber Co., Trenton, N. J.
Voorhees Rubber Mfg. Co., Jersey City.

Hose—Submarine.

Boston Belting Co., Boston—New York.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.
Revere Rubber Co., Youngstown, O.
Revere Rubber Co., Boston—New York.
A. Schrader's Son, Inc., New York.
Voorhees Rubber Mfg. Co., Jersey City.

Hose Bands, Straps & Menders.

W. D. Allen Mfg. Co., Chicago.
Boston Woven Hose & Rubber Co.
F. R. Howell Brass Works, Phila., Pa.
A. Schrader's Son, Inc., N. Y.
William Yerdon, Fort Plain, N. Y.

Lawn-Hose Supporters.

W. D. Allen Mfg. Co., Chicago.
C. J. Bailey & Co., Boston.

Lawn Sprinklers.

W. D. Allen Mfg. Co., Chicago.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.

Mallets (Rubber).

Boston Belting Co., Boston—New York.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Keystone R. M. Co., Erie, Pa.
Manhattan Rubber Mfg. Co., New York.
Morgan & Wright, Detroit, Mich.
National India Rubber Co., Bristol, R. I.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Boston—New York.

Mould Work.

(See Mechanical Rubber Goods.)
Ajax-Grieb Rubber Co., Trenton, N. J.
Atlantic R. Co., Hyde Park, Mass.
H. O. Canfield Co., Bridgeport, Ct.
Canton Rubber Co., Canton, O.
Cincinnati R. M. Co., Cincinnati, O.
Davison Rubber Co., Boston.
Davol Rubber Co., Providence, R. I.
Essex Rubber Co., Trenton, N. J.
Footless Rubber Co., Akron, O.
Haugland Rubber Co., New York.
Massachusetts Chemical Co., Walpole, Mass.

Mattson Rubber Co., Lodi, N. J.

Morgan & Wright, Detroit, Mich.
Plymouth Rubber Co., Stoughton, Mass.
Tyrer Rubber Co., Andover, Mass.

Oil Well Supplies.

Boston Belting Co., Boston—New York.
Boston Woven Hose & Rubber Co.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Co., New York.
N. J. Car Spring & Rubber Co., Jersey City.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.

Revere Rubber Co., Youngstown, O.
Revere Rubber Co., Boston—Pittsburgh.
Voorhees Rubber Mfg. Co., Jersey City.

(See Mechanical Rubber Goods.)
Jenkins Bros., New York.
Mattson Rubber Co., Lodi, N. J.

Paper Machine Rollers.

Boston Belting Co., Boston—New York.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
Manhattan Rubber Mfg. Co., New York.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Revere Rubber Co., Youngstown, O.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Plumbers' Supplies.

Canadian Rubber Co. of Montreal.
H. O. Canfield Co., Bridgeport, Ct.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
Morgan & Wright, Detroit, Mich.
Revere Rubber Co., Youngstown, O.
Voorhees Rubber Mfg. Co., Jersey City.
Western Rubber Works, Goshen, Ind.

Pump Valves.

(See Mechanical Rubber Goods.)
Jenkins Bros., New York.
Mattson Rubber Co., Lodi, N. J.
Massachusetts Chemical Co., Walpole, Mass.

Rock Drill Couplings.

F. R. Howell Brass Works, Phila., Pa.
Rolls—Rubber Covered.

Rolls—Rubber Covered.

Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
Cincinnati R. M. Co., Cincinnati, O.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
Empire Rubber Mfg. Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
Mechanical Rubber Co., Chicago.
Morgan & Wright, Detroit, Mich.
N. J. Car Spring & Rubber Co., Jersey City, N. J.

New York Belting & Packing Co., N. Y.

Peerless Rubber Mfg. Co., New York.
Plymouth Rubber Co., Stoughton, Mass.
Revere Rubber Co., Youngstown, O.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Sewing Machine Rubbers.

Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.

Springs—Rubber.

Boston Belting Co., Boston—New York.
Canadian Rubber Co. of Montreal.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.
Massachusetts Chemical Co., Walpole, Mass.

Mattson Rubber Co., Lodi, N. J.

Morgan & Wright, Detroit, Mich.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Plymouth Rubber Co., Stoughton, Mass.
Revere Rubber Co., Youngstown, O.
Revere Rubber Co., Boston—New York.
Voorhees Rubber Mfg. Co., Jersey City.

Stair Treads.

Boston Belting Co., Boston—New York.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.
Cincinnati R. M. Co., Cincinnati, O.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
Empire Rubber Mfg. Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.

Home Rubber Co., Trenton, N. J.

Manhattan Rubber Mfg. Co., New York.
Massachusetts Chemical Co., Walpole, Mass.
National India Rubber Co., Bristol, R. I.
N. J. Car Spring & Rubber Co., Jersey City, N. J.

New York Belting & Packing Co., N. Y.

RUBBER BUYERS' DIRECTORY—Continued.

Stair Treads—Continued.

New York Rubber Co., New York.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.
Voorhees Rubber Mfg. Co., Jersey City.

Thread.

B. F. Goodrich Co., Akron, O.
Mechanical Fabric Co., Providence, R. I.
Revere Rubber Co., Boston-New York.

Tiling.

American Hard Rubber Co., N. Y.
Canadian Rubber Co. of Montreal, Ltd.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co., N. Y.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Manhattan Rubber Mfg. Co., New York.
N. J. Car Spring & Rubber Co., Jersey City.

New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Voorhees Rubber Mfg. Co., Jersey City.

Tubing.

(See Mechanical Rubber Goods.)
American Hard Rubber Co., New York.
Boston W. H. & R. Co., Boston.
Cincinnati R. M. Co., Cincinnati, O.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence, R. I.
Mattson Rubber Co., Lodi, N. J.
Morgan & Wright, Detroit, Mich.
Plymouth Rubber Co., Stoughton, Mass.
Rubber Products Co., Barberton, O.
Star Rubber Co., Akron, O.
Tyer Rubber Co., Andover, Mass.
Voorhees Rubber Mfg. Co., Jersey City.
Everlasting Blow-Off Valves.
Osgood Sayers, Philadelphia, Pa.

Valve Balls.

Boston Belting Co., Boston.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Jenkins Bros., New York.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
Mechanical Rubber Co., Chicago.
National India Rubber Co., Bristol, R. I.
New York Belting & Packing Co., N. Y.
New York Rubber Co., New York.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Revere Rubber Co., Boston-New York.

Valve Discs.

American Hard Rubber Co., New York.
Boston Belting Co., Boston-New York.
Cincinnati R. M. Co., Cincinnati, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
Jenkins Bros., N. Y.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
Morgan & Wright, Detroit, Mich.
New York Belting & Packing Co., N. Y.
Peerless Rubber Mfg. Co., New York.
Republic Rubber Co., Youngstown, O.
Western Rubber Works, Goshen, Ind.

Valves.

(See Mechanical Rubber Goods.)
Emser Rubber Co., Trenton, N. J.
Jenkins Bros., New York-Chicago.
Mattson Rubber Co., Lodi, N. J.
Schacht Rubber Co., Huntington, Ind.
Vulcanite Emery Wheels.
Manhattan Rubber Mfg. Co., Passaic, N. J.
New York Belting & Packing Co., Ltd., New York.

Wringer Rolls.

Canadian Rubber Co., of Montreal.
Cincinnati R. M. Co., Cincinnati, O.
Cleveland Rubber Co., Cleveland, O.
Continental Rubber Works, Erie, Pa.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co., of Toronto, Ltd.
Home Rubber Co., Trenton, N. J.
Manhattan Rubber Mfg. Co., New York.
Mattson Rubber Co., Lodi, N. J.
New York Belting & Packing Co., N. Y.
Republic Rubber Co., Youngstown, O.

DRUGGISTS' AND STATIONERS' SUNDRIES.

Atomizers. Nipples.
Bandages. Syringes.
Bulbs. Water Bottles.
Druggists' Sundries, Generally.
Ajax-Grieb Rubber Co., Trenton, N. J.
American Hard Rubber Co., New York.
Atlantic R. Co., Hyde Park, Mass.

C. J. Bailey & Co., Boston.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.
Canton Rubber Co., Canton, O.
Cleveland Rubber Co., Cleveland, O.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence, R. I.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
Kibele & Co., August, Weissensfeld, Ger.
Luzerne Rubber Co., Trenton, N. J.
Mass. Chemical Co., Walpole, Mass.
National India Rubber Co., Bristol, R. I.
Parker, Stearns & Co., N. Y.
Pirelli & Co., Milan, Italy.
Rubber Products Co., Barberton, O.
Seamless Rubber Co., New Haven, Ct.
Star Rubber Co., Akron, O.
Tyer Rubber Co., Andover, Mass.
Walpole Rubber Co., Granby, P. Q.
Walpole Rubber Works, Walpole, Mass.

Balls, Dolls and Toys.

New York Rubber Co., New York.

Combination Fountain Syringe and Hot Water Bottle Fixtures.

A. Schrader's Son, Inc., N. Y.

Combs.

American Hard Rubber Co., New York.

Elastic Bands.

Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York-Boston.
Tyer Rubber Co., Andover, Mass.

Electrician Gloves.

Star Rubber Co., Akron, O.

Erasive Rubbers.

B. F. Goodrich Co., Akron, O.

Finger Cots.

Canton Rubber Co., Canton, O.
Cleveland Rubber Co., Cleveland, O.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence.
Faultless Rubber Mfg. Co., Akron, O.
B. F. Goodrich Co., Akron, O.
The Rubber Products Co., Barberton, O.
Star Rubber Co., Akron, O.

Gloves.

Canadian Rubber Co. of Montreal.
Canton Rubber Co., Canton, O.
Daval Rubber Co., Providence, R. I.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
National India Rubber Co., Bristol, R. I.
Rubber Products Co., Barberton, O.
Star Rubber Co., Akron, O.

Hard Rubber Goods.

American Hard Rubber Co., New York.
Canadian Rubber Co. of Montreal.
Davidson Rubber Co., Boston.
H. O. Canfield Co., Bridgeport, Ct.
Daval Rubber Co., Providence, R. I.
Luzerne Rubber Co., Trenton, N. J.
Stokes Rubber Co., Joseph, Trenton, N. J.
Tyer Rubber Co., Andover, Mass.

Hospital Sheatings.

Atlantic R. Co., Hyde Park, Mass.
Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.
Plymouth Rubber Co., Stoughton, Mass.
Tyer Rubber Co., Andover, Mass.

Hot Water Bottle Stopples.

A. Schrader's Son, Inc., N. Y.

Ice Bags and Ice Caps.

Canton Rubber Co., Canton, O.
Cleveland Rubber Co., Cleveland, O.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
National India Rubber Co., Bristol, R. I.
The Rubber Products Co., Barberton, O.
Star Rubber Co., Akron, O.
Tyer Rubber Co., Andover, Mass.

Life Preservers.

Daval Rubber Co., Providence.
Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.

Shower Bath Sprinklers.

Daval Rubber Co., Providence.
A. Schrader's Son, Inc., New York.

Sponges (Rubber).

Faultless Rubber Co., Ashland, O.
N. Tire Rubber Sponge Co., Chicago.

Stationers' Sundries.

American Hard Rubber Co., New York.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.
Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.
Cleveland Rubber Co., Cleveland, O.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York-Boston.
Seamless Rubber Co., New Haven, Ct.
Tyer Rubber Co., Andover, Mass.

Stopples (Metal).

A. Schrader's Son, Inc., N. Y.

Stopples (Rubber).

Continental R. Works, Erie, Pa.
Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
Hodgman Rubber Co., New York.
Manhattan Rubber Mfg. Co., New York.
New York Belting & Packing Co., N. Y.
Tyer Rubber Co., Andover, Mass.

Throat Bags.

Cleveland Rubber Co., Cleveland, O.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
National India Rubber Co., Bristol, R. I.
Tyer Rubber Co., Andover, Mass.

Tobacco Pouches.

Canadian Rubber Co. of Montreal.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
The Rubber Products Co., Barberton, O.
Tyer Rubber Co., Andover, Mass.

MACKINTOSHED AND SURFACE GOODS.

Air Goods (Rubber).

Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
New York Rubber Co., New York.
National India Rubber Co., Providence.
Rubber Products Co., Barberton, O.
Tyer Rubber Co., Andover, Mass.

Air Mattresses.

Canadian Rubber Co. of Montreal.
Mechanical Fabric Co., Providence, R. I.
National India Rubber Co., Bristol, R. I.

Barbers' Bibs.

Cleveland Rubber Co., Cleveland, O.
Daval Rubber Co., Providence, R. I.
Tyer Rubber Co., Andover, Mass.

Bathing Caps.

Atlantic R. Co., Hyde Park, Mass.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Rubber Products Co., Barberton, O.

Bellows Cloths.

Atlantic R. Co., Hyde Park, Mass.
Boston Rubber Co., Boston.
Cleveland Rubber Co., Cleveland, O.
Hodgman Rubber Co., New York.

Calendering.

Plymouth Rubber Co., Stoughton, Mass.
Carriage Ducks and Drills.
Cleveland Rubber Co., Cleveland, O.
Empire Rubber Mfg. Co., Trenton, N. J.
Gutta Percha & Rubber Mfg. Co., Toronto.

National India Rubber Co., Bristol, R. I.

Clothing.

Canadian Rubber Co. of Montreal.
Chicago Rubber Clothing Co., Racine, Wis.
Cleveland Rubber Co., Cleveland, O.
Gutta Percha & Rubber Mfg. Co. of Toronto.
Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.
Pirelli & Co., Milan, Italy.

Cravenette.

Cravenette Co., Ltd.

Diving Apparatus.

A. Schrader's Son, Inc., New York.

Horse Covers.

Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.
Leggings.
Cleveland Rubber Co., Cleveland, O.
Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.

Mackintoshes.

(See Clothing.)

Proofing.

Canadian Rubber Co. of Montreal.
Plymouth Rubber Co., Stoughton, Mass.
Schwarzwaelder Co., Philadelphia, Pa.

Rain Coats.

Cravenette Co., Ltd.
Rubber Coated Cloths.
Mechanical Fabric Co., Providence, R. I.

RUBBER FOOTWEAR.

Boots and Shoes.

American Rubber Co., Boston.
Boston Rubber Shoe Co., Boston.
Canadian Rubber Co. of Montreal.
L. Candee & Co., New Haven, Conn.
Converse Rubber Shoe Co., Malden, Mass.
B. F. Goodrich Co., Akron, O.
Gutta Percha & Rubber Mfg. Co. of Toronto.

Hood Rubber Co., Boston.
Lycorning Rubber Co., Williamsport, Pa.
Meyer Rubber Co., New York.
National India Rubber Co., Boston.
United States Rubber Co., New York.
Wales-Goodyear Rubber Co., Boston.
Woonsocket Rubber Co., Providence.

Buckles.

Crant Buckle Co., Boston.

Footwear Markers.

Frank Venn, Malden, Mass.

Heels and Soles.

Atlantic R. Co., Hyde Park, Mass.
C. J. Bailey & Co., Boston.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.
Emser Rubber Co., Trenton, N. J.
Foster Rubber Co., Boston.
The Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.

Massachusetts Chemical Co., Walpole, Mass.

Morgan & Wright, Detroit, Mich.
Plymouth Rubber Co., Stoughton, Mass.
Western Rubber Works, Goshen, Ind.

Tennis Shoes.

American Rubber Co., Boston.
Boston Rubber Shoe Co., Boston.
The Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.
National India Rubber Co., Providence.
United States Rubber Co., New York.

Wading Pants.

Canadian Rubber Co. of Montreal.
Hodgman Rubber Co., New York.

DENTAL AND STAMP RUBBER.

Dental Gum.

American Hard Rubber Co., New York.
Cleveland Rubber Co., Cleveland, O.
Tyer Rubber Co., Andover, Mass.

Rubber Dam.

Cleveland Rubber Co., Cleveland, O.
Davidson Rubber Co., Boston.
Daval Rubber Co., Providence, R. I.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
Tyer Rubber Co., Andover, Mass.

Stamp Gum.

B. F. Goodrich Co., Akron, O.
Mattson Rubber Co., Lodi, N. J.
Mechanical Rubber Co., Chicago, Ill.
N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.

ELECTRICAL.

Electrical Supplies.

American Hard Rubber Co., New York.
Joseph Stokes Rubber Co., Trenton, N. J.
Massachusetts Chemical Co., Boston.
Mattson Rubber Co., Lodi, N. J.
Tyer Rubber Co., Andover, Mass.

Friction Tape.

Boston Belting Co., Boston.
Boston Woven Hose & Rubber Co.
Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
B. F. Goodrich Co., Akron, O.
Home Rubber Co., Trenton, N. J.
Massachusetts Chemical Co., Boston.
Mechanical Rubber Co., Chicago.
National India Rubber Co., Bristol, R. I.
Revere Rubber Co., Boston-New York.
St. Louis R. Cement Co., St. Louis, Mo.

Hard Rubber Goods.

American Hard Rubber Co., New York.
Canadian Rubber Co. of Montreal.
Luzerne Rubber Co., Trenton, N. J.
Joseph Stokes Rubber Co., Trenton, N. J.

RUBBER BUYERS' DIRECTORY—Continued.

Insulating Compounds.
Canadian Rubber Co. of Montreal.
Gutta Percha & Rubber Mfg. Co., Toronto.
Massachusetts Chemical Co., Boston.

Insulated Wire and Cables.
The Indiana Rubber and Insulated Wire Co., Jonesboro, Ind.
Kerite Ins. Wire & Cable Co., N. Y.
National India Rubber Co., Providence.

Insulated Wire Waxes.
American Wax Co., Boston.

Splicing Compounds.
Boston W. H. & R. Co., Boston.
Horse Rubber Co., Trenton, N. J.
Massachusetts Chemical Co., Walpole, Mass.

SPORTING GOODS.

Foot Balls.
Canadian Rubber Co. of Montreal.

Cleveland Rubber Co., Cleveland, O.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
National India Rubber Co., Bristol, R. I.

Golf Balls.
Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
Davidson Rubber Co., Boston.
Essex Rubber Co., Trenton, N. J.
B. F. Goodrich Co., Akron, O.
The Gutta Percha & Rubber Mfg. Co. of Toronto, Ltd.

Sporting Goods.
Canadian Rubber Co. of Montreal.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
Hodgman Rubber Co., New York.
Tyer Rubber Co., Andover, Mass.

Striking Bags.
Canadian Rubber Co. of Montreal.
Cleveland Rubber Co., Cleveland, O.
Faultless Rubber Co., Akron, O.
B. F. Goodrich Co., Akron, O.
Rubber Products Co., Barberton, O.

Submarine Outfits.
Hodgman Rubber Co., New York.
A. Schrader's Sons, Inc., New York.

MISCELLANEOUS.

Armor for Hose.
Woven Steel Hose & Rubber Co., Trenton, N. J.

Boxes (Wood).
Henry H. Shelp & Co., Philadelphia.

Brass Fittings.
A. Schrader's Son, New York.

Cement (Rubber).
Boston Belting Co., Boston.
Canadian Rubber Co. of Montreal.
B. F. Goodrich Co., Akron, O.
Manhattan Rubber Mfg. Co., New York.
Massachusetts Chemical Co., Walpole, Mass.
Morgan & Wright, Detroit, Mich.

N. J. Car Spring & Rubber Co., Jersey City, N. J.
New York Belting & Packing Co., N. Y.
St. Louis Rubber Cement Co., St. Louis, Mo.

Chemists.
Maywald, F. J., New York.
Stephen P. Sharples, Boston, Mass.

Consulting Engineers.
Akron Rubber Engineering Co., Akron, O.
Manufacturing Chemists.
Farrington & Co., Boston.

Rubber Journals.
Gummi-Zeitung, Dresden, Germany.
L'Agriculture des Pays Chauds, France.
Rubber Tree Seeds.
J. P. William & Bros., Heneratogoda, Ceylon.

Tapping Tools.
G. Van den Kerckhove, Brussels, Belgium.
Valves for Air Goods.
A. Schrader's Son, Inc., New York.

MACHINERY AND SUPPLIES FOR RUBBER MILLS.

RUBBER MACHINERY.

Acid Tanks.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.

Air Compressors.
Williams F. & M. Co., Akron.

Band Cutting Machines.
A. Adamson, Akron, O.
Birmingham Iron Foundry, Derby, Conn.

Belt Folding Machines.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.

Branding Dies.
Horace E. Fine, Trenton, N. J.
H. A. Huislander, Trenton.

Belt Slitters.
Farrel F. & M. Co., Ansonia, Conn.

Belt Stretchers.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.
Hogson & Pettis Mfg. Co., New Haven.

Boilers.
William R. Thropp, Trenton, N. J.
John E. Thropp & Sons Co., Trenton, N. J.

Braiders.
New England Butt Co., Providence, R. I.

Calenders.
Birmingham Iron Foundry, Derby, Conn.
David Bridge & Co., Castleton, Manchester, Eng.
Farrel F. & M. Co., Ansonia, Conn.
Textile-Finishing Machinery Co., Providence, R. I.

Castings.
A. Adamson, Akron, O.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.
McFarland Fdry. & Mach. Co., Trenton, N. J.

Chucks (Lathe).
Hogson & Pettis Mfg. Co., New Haven.

Churns.
American Tool & Machine Co., Boston.

Cloth Dryers.
Farrel F. & M. Co., Ansonia, Conn.

Clutches.
Farrel F. & M. Co., Ansonia, Conn.
Williams F. & M. Co., Akron.

Cotton Goods.
Sheetings, Drills, Yarns, Fabrics.
Boston Yarn Co., New York.
J. H. Lane & Co., N. Y.
J. Spencer Turner Co., New York.
Wellington Sears & Co., Boston, Mass.

Crackers.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.

Devulcanizers.
Biggs Boiler Works Co., Akron, O.
Birmingham Iron Foundry, Derby, Conn.
Edred W. Clark, Hartford, Conn.
Farrel F. & M. Co., Ansonia, Conn.

John E. Thropp & Sons Co., Trenton, N. J.
William R. Thropp, Trenton, N. J.

Dies.
Horace E. Fine Co., Trenton, N. J.
Hogson & Pettis Mfg. Co., New Haven.
Housatonic Mach. & Tool Co., Bridgeport, Conn.
Phila. Cons. Die Co., Phila., Pa.
Taplin, Rice-Clerkin Co., Akron, O.
Williams F. & M. Co., Akron.

Doubling Machines.
American Tool & Machine Co., Boston.
Farrel F. & M. Co., Ansonia, Conn.

Drying Machines.
Buffalo Foundry & Machine Co., Buffalo, N. Y.
David Bridge & Co., Castleton, Manchester, Eng.

Embossing Calenders.
Farrel F. & M. Co., Ansonia, Conn.
Textile-Finishing Machinery Co., Providence, R. I.

Engine Steam.
William R. Thropp, Trenton, N. J.
John E. Thropp & Sons Co., Trenton, N. J.

Engraving Rolls.
Farrel F. & M. Co., Ansonia, Conn.
Hogson & Pettis Mfg. Co., New Haven.

Grinders and Mixers.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.
John E. Thropp & Sons Co., Trenton, N. J.
William R. Thropp, Trenton, N. J.

Hangers.
Farrel F. & M. Co., Ansonia, Conn.

Hose Machines.
A. Adamson, Akron, O.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.
New England Butt Co., Providence, R. I.

Hydraulic Accumulators.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.
John E. Thropp & Sons Co., Trenton, N. J.
Williams F. & M. Co., Akron.

Insulating Machinery.
New England Butt Co., Providence, R. I.
John Royle & Sons, Paterson, N. J.

Lathe—Hard Rubber.
A. Adamson, Akron, O.

Lathe—Jar Ring.
A. Adamson, Akron, O.
Birmingham Iron Foundry, Derby, Conn.
John E. Thropp & Sons Co., Trenton, N. J.
William R. Thropp, Trenton, N. J.

Machinists' Tools.
Hogson & Pettis Mfg. Co., New Haven.

Moulds.
A. Adamson, Akron, O.
Birmingham Iron Foundry, Derby, Conn.
Continental Rubber Works, Erie, Pa.
Hogson & Pettis Mfg. Co., New Haven.
Housatonic Mach. & Tool Co., Bridgeport, Conn.
McFarland Fdry. & Mach. Co., Trenton, N. J.
Taplin, Rice-Clerkin Co., Akron, O.
John E. Thropp & Sons Co., Trenton, N. J.
Williams Foundry & Machine Co., Akron, O.

Mold Engraving Co.
H. A. Huislander, Trenton, N. J.

Pattern Makers.
McFarland Fdry. & Mach. Co., Trenton, N. J.

Pillow Blocks.
Farrel F. & M. Co., Ansonia, Conn.
McFarland Fdry. & Mach. Co., Trenton, N. J.

Presses (for Rubber Work).
A. Adamson, Akron, O.
Birmingham Iron Foundry, Derby, Conn.
Boomer & Boechert Press Co., Syracuse, N. Y.

Pumps.
Birmingham Iron Foundry, Derby, Conn.
Boomer & Boechert Press Co., Syracuse, N. Y.
Farrel F. & M. Co., Ansonia, Conn.

Racks for Boot and Shoe Cars.
Hogson & Pettis Mfg. Co., New Haven.

Reducing Valves.
Mason Regulator Co., Boston.

Rollers (Hand).
Hogson & Pettis Mfg. Co., New Haven.

Rubber Covering Machines.
New England Butt Co., Providence, R. I.

Separators.
Turner, Vaughn & Taylor Co., Cuyahoga Falls, O.

Shafting.
Farrel F. & M. Co., Ansonia, Conn.

Spreaders.
American Tool & Machine Co., Boston.
Birmingham Iron Foundry, Derby, Conn.
New England Butt Co., Providence, R. I.

Steam Traps and Specialties.
Jenkins Bros., New York.
Mason Regulator Co., Boston.

Steel Stamps.
Horace E. Fine Co., Trenton, N. J.
Hogson & Pettis Mfg. Co., New Haven.

Stichers (Hands).
Hogson & Pettis Mfg. Co., New Haven.

Strip Covering Machines.
Strip Cutters.
New England Butt Co., Providence, R. I.

Tire Molds.
John E. Thropp & Sons Co., Trenton, N. J.
Williams Foundry & Machine Co., Akron, O.

Tire Repair Equipment.
Williams F. & M. Co., Akron.

Tire Vulcanizing Presses.
Williams F. & M. Co., Akron.

Tubing Machines.
A. Adamson, Akron, O.
Edred W. Clark, Hartford, Conn.
Housatonic Mach. & Tool Co., Bridgeport, Conn.

Vacuum Drying Chambers.
Buffalo Foundry & Machine Co., Buffalo, N. Y.

Varnishing Machines.
Birmingham Iron Foundry, Derby, Conn.

Vulcanizers.
Biggs Boiler Works Co., Akron, O.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.

Washers.
Birmingham Iron Foundry, Derby, Conn.
David Bridge & Co., Castleton, Manchester, Eng.

Wrapping Machines.
Birmingham Iron Foundry, Derby, Conn.
Farrel F. & M. Co., Ansonia, Conn.

SECOND-HAND MACHINERY.

W. C. Coleman Co., Boston.
Philip McGrory, Trenton, N. J.
M. Norton & Co., Charlestown, Mass.

FACTORY SUPPLIES.

Aluminum Flake.
Aluminum Flake Co., Akron, O.

Antimony, Sulphurets of.
Golden.

Golden and Crimsons.
Actien-Ges. Georg Egestorff's Salzworke, Linden, Germany.
Atlas Chemical Co., Newtonville, Mass.

Golden and Crimsons.
Joseph Cantor, New York.

Golden and Crimsons.
Wm. H. Scheel, New York.

MACHINERY AND SUPPLIES FOR RUBBER MILLS—Continued.**Antimony, Sulphurets of.—Continued.****Artificial Rubber.**

National Co., Chicago.
Stamford (Conn.) Rubber Supply Co.
Type & King, London, England.

Balata.

George A. Alden & Co., Boston.
Robt. Badenhop, N. Y.
Raw Products Co., N. Y.

Barytes.

Gabriel & Schall, New York.

Benzol.

Barrett Mfg. Co., Philadelphia.

Samuel Cabot, Boston.

Black Hypo.

Joseph Cantor, New York.
William H. Scheel, New York.
Type & King, London, England.

Carbon Bisulphide.

George W. Speaight, New York.

Chemicals.

George W. Speaight, New York.
S. P. Wetherill Co., Philadelphia, Pa.

Colors.

Joseph Cantor, New York.
William H. Scheel, New York.
Type & King, London, England.

S. P. Wetherill Co., Philadelphia, Pa.

Crude Rubber.

George A. Alden & Co., Boston.
Hadenhop, Robt., New York.
W. C. Coleman Co., Boston.
Wallace L. Gough Co., New York.
Hagermeyer & Brunn, New York.
Adolph Hirsch & Co., New York.
Raw Products Co., N. Y.
Rubber Trading Co., New York-Boston.

Dermatine.

The Dermatine Co., London.
Ducks and Drills (Cotton).
J. H. Lane & Co., New York.

Fossil Flour.

American Tripoli Co., Seneca, Mo.
Oxford-Tripoli Co., Ltd., N. Y.

Gilsonite.

William H. Scheel, New York.
Guayule Rubber.

E. S. Churchill, N. Y.

Continental Rubber Co.

Ed. Maurer, New York.

Chas. T. Wilson, New York.

Gutta-Percha.

George A. Alden & Co., Boston.

Robt. Badenhop, N. Y.

E. S. Churchill, N. Y.

W. C. Coleman Co., Boston.

Raw Products Co., N. Y.

Rubber Trading Co., New York-Boston.

Hydro-Carbon Products.

Geo. A. Alden & Co., Boston.

American Wax Co., Boston.

William H. Scheel, New York.

Raven Mining Co. of Utah, Chicago.

Infusorial Earth.

Oxford-Tripoli Co., Ltd., N. Y.

Stamford (Conn.) Rubber Supply Co.

Kapak.

Haven Mining Co. of Utah, Chicago.

Lampblack.

Samuel Cabot, Boston.

Lead—Blue.**Lead—Sublimed White.**

Picher Lead Co., Chicago, Ill.

St. Louis Smelting & Refining Co., St. Louis.

Lithopone.

Gabriel & Schall, New York.

Mineral Rubber.

Geo. A. Alden & Co., Boston.

American Wax Co., Boston.

Paris White and Whiting.

H. F. Taintor Mfg. Co., New York.

Reclaiming Compounds.

Farrington & Co., Boston.

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F. H. Appleton & Son, Boston.

Bloomington (N. J.) Soft Rubber Co.

E. H. Clapp Rubber Co., Boston, Mass.

W. C. Coleman Co., Boston.

Continental Rubber Works, Erie, Pa.

Dauversport Rubber Co., Boston.

Eastern Rubber Co., New York.

Manufactured Rub. Co., Phila., Pa.

New Jersey Rubber Co., Lambertville, N. J.

Pequanoe Rubber Co., Butler, N. J.

Philadelphia Rubber Works, Philadelphia.

Stockton Rubber Co., Stockton, N. J.

Jos. Stokes Rubber Co., Trenton, N. J.

S. & L. Rubber Co., Chester, Pa.

United Rubber Co., Akron, O.

U. S. Rubber Reclaiming Works, N. Y.

Westmoreland Rubber Mfg. Co., Grapeville, Pa.

Agents and Dealers.

Philip McGroarty, Trenton, N. J.

H. P. Moorhouse, Paris, France.

Rubber Trading Co., New York-Boston.

Rubber Flux.

Massachusetts Chemical Co., Walpole, Mass.

Rubber Makers, White.

Grasselli Chemical Co., N. Y.

Scrap Rubber.

Bers & Co., Philadelphia.

S. Birkenstein & Sons, Chicago.

W. C. Coleman Co., Boston.

Wm. H. Cummings & Sons, New York.

Eisemann, Wm., New York.

Gordon, Jas., Trenton, N. J.

Theodore Hoffeller & Co., Buffalo, N. Y.

M. Kaufman, Chicago.

B. Loewenthal & Co., New York and Chicago.

Philip McGroarty, Trenton, N. J.
Millard, Geo. P., Clyde, N. Y.
E. F. Norton & Co., Chicago.

M. Norton & Co., Charlestown, Mass.

Rosenthal, H. A., Trenton, N. J.

J. Schourmann, London.

Trenton Scrap Rubber Supply Co., Trenton, N. J.

M. J. Wolpert, Odessa, Russia.

Substitute.

T. C. Ashley & Co., Boston.

Joseph Cantor, New York.

Carter, Bell Mfg. Co., New York.

Corn Products Refining Co., New York.

Massachusetts Chemical Co., Boston.

The Pierce Co., E. Rochester, N. Y.

The Rubber Chemical Co., Birmingham, England.

Wm. H. Scheel, New York.

Stamford (Conn.) Rubber Supply Co.

Type & King, London, England.

Wing & Co., C. S. Wollaston, Mass.

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Battelle & Renwick, New York.

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American Tripoli Co., Seneca, Mo.

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Waxes.

American Wax Co., Boston.

Whiting.

H. F. Taintor Mfg. Co., New York.

Zinc Oxide of.

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Goodrich Co., B. F., Akron, Ohio.

Tires.

Bailey & Co., C. J., Boston, Mass.
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Dunlop Tire & Rubber Goods Co., Toronto.
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Kokomo Rubber Co., Kokomo, Ind.
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